17703

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SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Jeffrey E. Russel Examiner #: 62785 Date: 10-10-2002

Art Unit: 1654 Phone Number 30 8-3975 Serial Number: 08/236402

Mail Box and Bldg/Room Location: CM1-9801 / CM1-9807 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

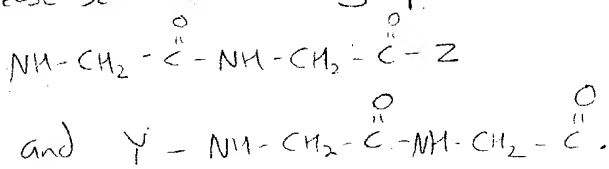
Title of Invention: Technetium-99M Labeled Imaging Agents

Inventors (please provide full names): R. Dean, J. Lister-James, W. McBride

Earliest Priority Filing Date: 5-2-1994

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please search the following partial structures:



and

Z is one of the compounds from groups I or II on the attached sheet, bound to the remainder of the ~~molecule~~ partial structure by its amino group so that an amide bond is formed.

Y is one of the compounds from groups I or III on the attached sheet, bound to the remainder of the partial structure by its carboxyl group so that an amide bond is formed.

I'm interested in U.S. patents regardless of their publication date, or any other journal or patent reference published in 1995 or earlier. Keywords are conjugat?, Tc, technetium, radiolabel?. Thank you. JER

****

STAFF USE ONLY

Searcher: Shemane

Searcher Phone #: 308-4499

Searcher Location: _____

Date Searcher Picked Up: _____

Date Completed: 10/11/02

Searcher Prep & Review Time: _____

Clerical Prep Time: _____

Online Time: _____

Type of Search

NA Sequence (#) _____

AA Sequence (#) _____

Structure (#) _____

Bibliographic _____

Litigation _____

Fulltext _____

Patent Family _____

Other _____

Vendors and cost where applicable

STN _____

Dialog _____

Questel/Orbit _____

Dr.Link _____

Lexis/Nexis _____

Sequence Systems _____

WWW/Internet _____

Other (specify) _____

PTO-1590 (8-01)

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FILE COVERS 1907 - 11 Oct 2002  VOL 137 ISS 16
FILE LAST UPDATED: 10 Oct 2002  (20021010/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

CAS roles have been modified effective December 16, 2001. Please
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information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

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L6                STR
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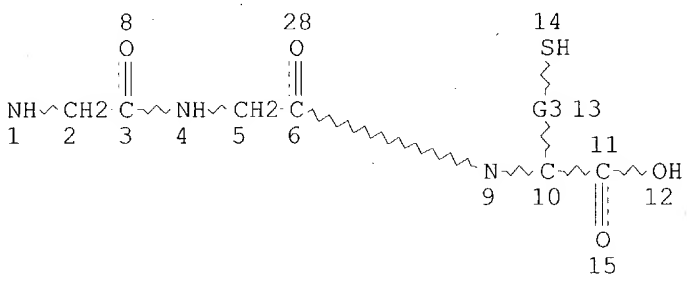


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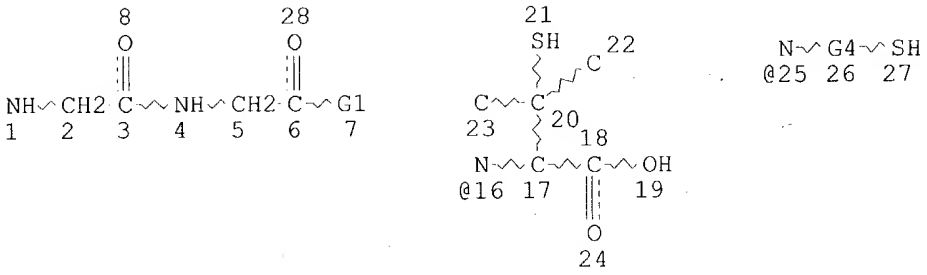

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STEREO ATTRIBUTES: NONE
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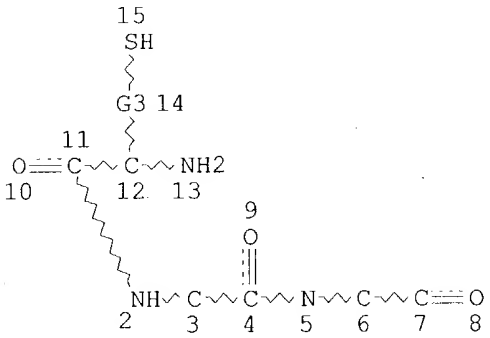

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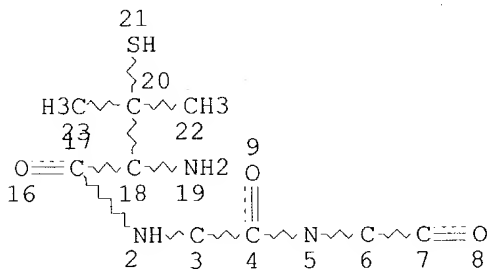

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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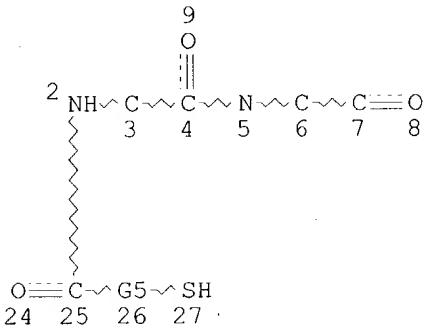
STEREO ATTRIBUTES: NONE
L23 STR



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GRAPH ATTRIBUTES:
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STEREO ATTRIBUTES: NONE
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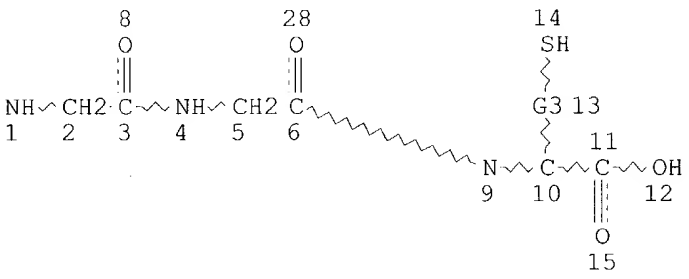

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GRAPH ATTRIBUTES:
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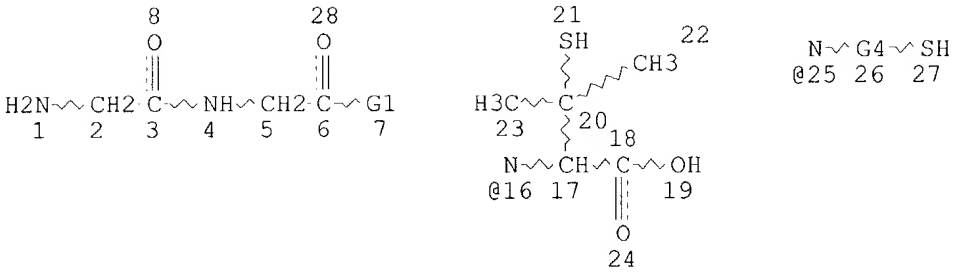
STEREO ATTRIBUTES: NONE
L28 STR



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DEFAULT MLEVEL IS ATOM
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GRAPH ATTRIBUTES:
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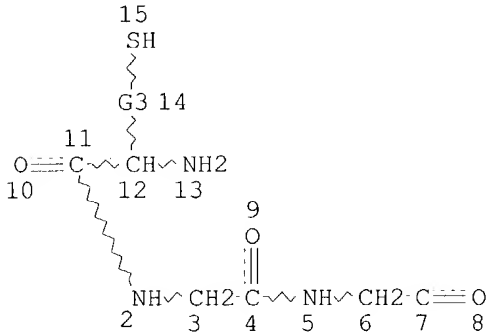
NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE
L29 STR



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GRAPH ATTRIBUTES:
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STEREO ATTRIBUTES: NONE
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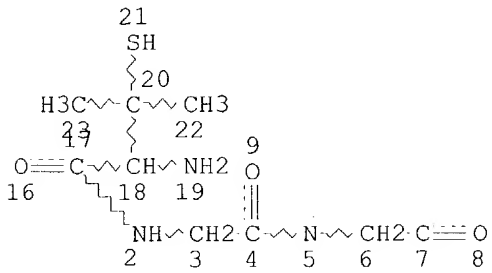

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
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GRAPH ATTRIBUTES:
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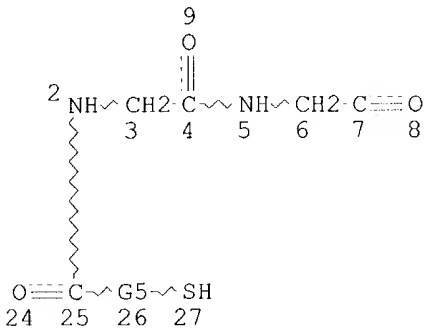
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L31 STR



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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

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L34	461	SEA FILE=HCAPLUS ABB=ON PLU=ON L32
L35	95711	SEA FILE=HCAPLUS ABB=ON PLU=ON L33 OR TC OR TECHNETI?
L36	125	SEA FILE=HCAPLUS ABB=ON PLU=ON L34(L)(L35 OR CONJUGAT? OR RADIOLABE?)
L37	42	SEA FILE=HCAPLUS ABB=ON PLU=ON L36 NOT (2002 OR 2001 OR 2000 OR 1999 OR 1998 OR 1997 OR 1996)/PY

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=> d ibib abs hitrn l37 1-42

L37 ANSWER 1 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:611268 HCAPLUS
DOCUMENT NUMBER: 125:298945
TITLE: Development of a hormone neutralizing vaccine, using GnRH-glycys-PPD, for use in the treatment of estrogen-dependent disorders
AUTHOR(S): Ferro, V. A.; O'Grady, J. E.; Notman, J.; Stimson, W. H.
CORPORATE SOURCE: Department Immunology, University Strathclyde, Glasgow, UK
SOURCE: Therapeutic Immunology (1995), 2(3), 147-157
CODEN: THIMEY; ISSN: 0967-0149
PUBLISHER: Blackwell
DOCUMENT TYPE: Journal

LANGUAGE: English
AB The aim of this study was to develop an effective and nontoxic vaccine, suitable for use in humans, which was capable of effectively controlling estrogen levels. Female Sprague-Dawley rats were immunized with a conjugated analog of gonadotropin releasing hormone, GnRH-glycys-PPD. This resulted in high levels of neutralizing antibody which disrupted GnRH function and consequently caused a redn. in serum estrogen. The effect of estrogen deprivation correlated well with ovarian failure and gonadal atrophy. An examn. was made of various adjuvants in conjunction with the analog to det. the suitability of the combinations in the formulation of an effective human vaccine. This investigation included a novel adjuvant, non-ionic surfactant vesicles (NISV); the results showed that NISV are completely nontoxic and in terms of potentiating and sustaining an immune response, compare favorably with Freund's adjuvant and alum. In addn. the long term effects of immunization were investigated and the data showed that immunoneutralization of GnRH effectively suppresses fertility on a long-term basis.
IT **108635-48-9D**, LH-RH glycys, **conjugates** with PPD
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hormone-neutralizing vaccine GnRH-glycys-PPD in treatment of estrogen-dependent disorders)

L37 ANSWER 2 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:59412 HCAPLUS
DOCUMENT NUMBER: 124:197210
TITLE: Sources of radiochemical impurities in the 99mTc/S-unprotected MAG3 system
AUTHOR(S): Noll, B.; Johannsen, B.; Spies, H.
CORPORATE SOURCE: Forschungszentrum Rossendrof, Institut fur Bioanorganische und Radiopharmazeutische Chemie, Dresden, D-01314, Germany
SOURCE: Nuclear Medicine and Biology (1995), 22(8, New Radio-Tracers and Methods of Quality Assurance for Nuclear Medicine Applications), 1057-62
CODEN: NMBIEO; ISSN: 0883-2897
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Impurities in the 99mTc-S-unprotected MAG3 system are examd.
IT **66516-09-4D**, Mercaptoacetyltriglycine, **technetium**-99 complexes
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sources of radiochem. impurities in 99mTc/S-unprotected MAG3 system)

L37 ANSWER 3 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:910371 HCAPLUS
DOCUMENT NUMBER: 123:306747
TITLE: Immunological castration using a gonadotropin-releasing hormone analog conjugated to PPD
AUTHOR(S): Ferro, V. A.; O'Grady, J. E.; Notman, J.; Stimson, W. H.
CORPORATE SOURCE: Todd Centre, University of Strathclyde, Glasgow, G4 ONR, UK
SOURCE: Food and Agricultural Immunology (1995), 7(3), 259-72
CODEN: FAIMEZ; ISSN: 0954-0105
PUBLISHER: Carfax
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The importance of gonadotropin-releasing hormone/LH-releasing hormone (GnRH/LHRH) to reproductive function is illustrated when animals immunized with GnRH produce a high humoral immune response which can achieve a

humane alternative to surgical castration. In this paper, the male rat was used as a model. Rats were immunized with an analog of GnRH, GnRH-glycys, in both its free form and conjugated to the carrier PPD. Pre-immunization priming with BCG was compared with non-BCG priming. The results showed that BCG priming, in the absence of adjuvant, allowed a sufficient redn. in testosterone levels to occur without severely affecting gonadal changes. Immunization in conjunction with adjuvant resulted in high antibody titers, a decrease in testosterone levels, gonadal atrophy and a redn. in spermatogenesis. Alteration of the dose levels of the analog and the long-term effects of immunization on gonadal function were also investigated.

IT **108635-48-9D**, LHRH-glycys, **conjugates** with PPD
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(for immunol. castration)

L37 ANSWER 4 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:646401 HCAPLUS
DOCUMENT NUMBER: 123:106694
TITLE: Clinical evaluation of 99mTc-MAG3 as a radiotracer to assess the function of transplanted kidney. Comparison with 123I-OIH
AUTHOR(S): Yamamoto, Kazutaka; Takahashi, Norio; Sugimoto, Katsuya; Yoshida, Masanori; Hayashi, Nobushige; Ishii, Yasushi; Nishibuchi, Shigeo; Muranaka, Kouji; Okada, Kenichirou; Miyazaki, Masaomi
CORPORATE SOURCE: Dep. Radiol., Fukui Med. Sch., Fukui, 910-11, Japan
SOURCE: Nippon Igaku Hoshasen Gakkai Zasshi (1995), 55(6), 409-13
CODEN: NHGZAR; ISSN: 0048-0428
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB We evaluated the clin. usefulness of 99mTc-MAG3 (mercaptacetyl glycylglycylglycine) in 12 cases (7 men and 5 women, aged from 18-57 yr old) with transplanted kidney, and compared it with 123I-OIH (o-iodohippurate). Immediately after bolus injection of 300 MBq of 99mTc-MAG3, 1st pass images (1 frame/3 s for 1 min) and dynamic renal images (1 frame/60 s for 30 min) were recorded. In 10 of 12 cases, the same examn. was carried out using 37 MBq of 123I-OIH within 2 wk. Because of its larger dose and suitable .gamma.-ray energy, 99mTc-MAG3 provided much better images than 123I-OIH, particulary among 1st pass images. Effective renal plasma flow (ERPF) calcd. from the clearance of 99mTc-MAG3 was less (about 70%) than that of 123I-OIH, however, a strong correlation ($r = 0.98$, $p < 0.001$) was obsd. between the ERPF values of the 2 radiotracers. No adverse effects were caused by 99mTc-MAG3. Our data suggested that 99mTc-MAG3 was a promising radiopharmaceutical with which to evaluate regional dynamic renal function.

IT **66516-09-4D**, **technetium**-99m complexes
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(clin. evaluation of **technetium**-99m-MAG3 as radiotracer to assess the function of transplanted kidney)

L37 ANSWER 5 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:595617 HCAPLUS
DOCUMENT NUMBER: 123:186758
TITLE: Investigation of the labeling characteristics of 99mTc-mercaptoacetyltriglycine
AUTHOR(S): Bormans, G.; Cleynhens, B.; Adriaens, P.; Vanbilloen, H.; De Roo, M.; Verbruggen, A.
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, K. U. Leuven, Louvain, B-3000, Belg.
SOURCE: Nuclear Medicine and Biology (1995), 22(3), 339-49
CODEN: NMBIEO; ISSN: 0883-2897

DOCUMENT TYPE: Journal
LANGUAGE: English
AB S-Benzyl-, S-benzamidomethyl- and S-benzoylmercaptoacetyltriglycine were synthesized and compared in exchange labeling expts. for the prepn. of 99mTc-MAG3. The rate of exchange from 99mTc-tartrate to 99mTc-MAG3 starting from the resp. precursors was detd. in different conditions. Labeling proceeded most rapidly starting from the S-benzoyl protected precursor but efficient labeling was also accomplished using the more stable S-benzamidomethyl- and S-benzylmercaptoacetyltriglycine. 99mTc-MAG3 was also prepd. by direct labeling of unprotected mercaptoacetyltriglycine at alk. pH. Radiochem. purity in these conditions is mainly dependent on the pH during labeling.
IT **66516-09-4DP**, Mercaptoacetyltriglycine, **technetium**-99 complexes
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and biodistribution of metastable)

L37 ANSWER 6 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:528919 HCAPLUS
DOCUMENT NUMBER: 122:299087
TITLE: Compositions containing benzoylmercaptoacetylglycylglycylglycine and pertechnetate salt-reducing agents for labeled technetium preparations
INVENTOR(S): Taguchi, Kazumi; Suginoo, Osamu
PATENT ASSIGNEE(S): Daiichi Radioisotope Lab, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07041433	A2	19950210	JP 1993-204502	19930728

AB Compns., for labeled Tc prepns., comprise benzoylmercaptoacetylglycylglycylglycine (I), which contains enough amt. of mercaptoacetylglycylglycylglycine for chelate formation with Tc, and reducing agents for pertechnetate salts. The labeled Tc prepns. are manufd. by dissolving I in solvents, adjusting the pH of the soln. to 6-8, heating the soln. at 55-65.degree., addn. of SnCl2 to the soln., and adjusting the pH of the soln. to 6-8 again. The labeled Tc prepns. are useful for kidney imaging, etc. Na tartrate and I were dissolved in H2O, from which sol. O had been removed, the soln. was adjusted to pH .apprx.7 with aq. NaOH, stirred at 60.degree. for 25 min, cooled with ice, SnCl2 was added to the soln., the soln. was adjusted to pH .apprx.7 with aq. NaOH, filled up with H2O, and freeze-dried to give a compn. The compn. was stirred with 99mTc-labeled Na pertechnetate injection to give a prepn. contg. 99mTc-I complex. The prepn. showed radiochem. purity of 93.84%.
IT **66516-09-4**, Mercaptoacetylglycylglycylglycylglycine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. contg. benzoylmercaptoacetylglycylglycylglycylglycine, mercaptoacetylglycylglycylglycylglycine, and pertechnetate salt-reducing agents for labeled **Tc** prepns. for kidney imaging)

L37 ANSWER 7 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:514103 HCAPLUS
DOCUMENT NUMBER: 123:40909
TITLE: Effects of generator eluate age on the radiochemical purity of fractionated 99Tcm-MAG3
AUTHOR(S): Hung, J.C.; Thorson, L.M.
CORPORATE SOURCE: Department of Diagnostic Radiology, Mayo Clinic,

Rochester, MN, 55905, USA
SOURCE: Nuclear Medicine Communications (1995), 16(3), 157-60
CODEN: NMCODC; ISSN: 0143-3636
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The fractionation of US mercaptoacetyltriglycine (MAG3) cold kits provides an economical way of prepg. 99mTc-MAG3. However, our nuclear pharmacy noted that fractionated 99mTc-MAG3 kits sometimes failed radiochem. purity (RCP) testing (i.e., RCP <90%) when a 99mTc eluate of older age was used. The purpose of this study was to evaluate the effects of eluate age on the radiochem. purity of fractionated 99mTc-MAG3 kits. Each of four US MAG3 cold kits was initially dild. with 10 mL N2-purged 0.9% NaCl soln. and subdivided into 10 aliquots of 1 mL MAG3 soln. and overlayered with N2. The 40 fractionated MAG3 vials were immediately frozen at -20.degree.C for storage. Fractionated MAG3 kits were reconstituted with 1 mL of .apprx.111 GBq 99mTc eluate from a long-ingrowth generator (i.e., .gtoreq.72 h) every hour during the 6 h postelution period.

IT **66516-09-4D**, Mercaptoacetyltriglycine, **technetium**-99 complexes
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(generator eluate age effect on radiochem. purity of fractionated 99mTc-MAG3)

L37 ANSWER 8 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:552251 HCAPLUS
DOCUMENT NUMBER: 121:152251
TITLE: Measurement of the extravascular concentration of renal agents following intravenous bolus injection
AUTHOR(S): Peters, A.M.; Brown, H.; Cosgriff, P.
CORPORATE SOURCE: Dep. Diagn. Radiol., Hammersmith Hosp., London, UK
SOURCE: Nuclear Medicine Communications (1994), 15(2), 46-72
CODEN: NMCODC; ISSN: 0143-3636
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The extravascular concn. (Ce) of some renal agents, in relation to the simultaneous plasma concn. (Ci), was calcd. as a function of time after i.v. injection. Four agents were studied: 51Cr-EDTA (n = 11), 125I-hippuran (n = 11), 99mTc-dimercaptosuccinic acid (DMSA) (n = 11) and 99mTc-mercaptoacetyltriglycine MAG3 (n = 20). Plasma clearance curves were constructed from data acquired from multiple blood sampling and fitted with two exponentials. The extravascular content of tracer at any time is equal to the injected dose remaining after subtraction of the intravascular tracer content and the total amt. of tracer cleared from plasma. Mean Ce/Ci at equil. (defined as the time, >120 min, when Ce/Ci reaches its max. value) was 1.087 (S.D. 0.019) for EDTA, 1.73 (0.48) for hippuran, 0.37 (0.2) for DMSA and 0.64 (0.3) for MAG3. Corresponding clearance (F) values were 68 (13), 415 (149), 15.6 (9.5) and 214 (52) mL min -1 1.73 m-2. Ce/Ci correlated with F and was also related to protein binding in plasma. Extrapolation of the regressions of Ce/Ci on F to F = 0 at several time points after injection gives a curve of Ce/Ci (at F = 0) against time which represents the rate of equilibration of the tracer throughout its distribution vol. that would be seen with zero clearance, and therefore allows measurement of the in vivo protein binding of the tracer in plasma. Protein binding was zero for EDTA, 30% for hippuran, 86% for DMSA and 88% for MAG3. Ce/Ci may be higher than expected from protein binding if the plasma clearance of the tracer is rapid, as for hippuran and MAG3, and may introduce error into plasma clearance curves based on gamma camera blood pool regions of interest.

IT **66516-09-4D**, Mercaptoacetyltriglycine, **technetium**-99 complexes
RL: BIOL (Biological study)
(kidney scintigraphy agent, extravascular concn. detn. of)

L37 ANSWER 9 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:453220 HCAPLUS
DOCUMENT NUMBER: 121:53220
TITLE: Labeling of sulfur-containing glycine derivatives with Tc-99m radionuclide
AUTHOR(S): Kornyei, Jozsef; Torko, Janos; Volford, Janos; Sztaricskai, Ferenc
CORPORATE SOURCE: Izotop Intez. Kft, Budapest, H-1525, Hung.
SOURCE: Magyar Kemiai Folyoirat (1994), 100(4), 189-92
CODEN: MGKFA3; ISSN: 0025-0155
DOCUMENT TYPE: Journal
LANGUAGE: Hungarian
AB Mercaptoacetyltriglycine and its related compds. were synthesized and labeled with Tc-99m-radionuclide to study the effect of some substituents and labeling conditions upon the formation of radioactive byproducts. Direct labeling and ligand exchange reactions were carried out followed by the radio-TLC sepn. The direct labeling in alk. media at elevated temp. provides high radiochem. yields and offers opportunity for a new kit formulation because the neutralization to the physiol. pH does not cause any change in the chem. identity of the complexes. Compds. with strongly polar sulfonyl group show significantly lower protein binding compared with mercaptoacetyltriglycine and may be considered as potential renal agents.
IT **66516-08-3**, Mercaptoacetyldiglycine **66516-09-4**, Mercaptoacetyltriglycine
RL: BIOL (Biological study)
(**technetium**-99m labeling of, for kidney imaging)

L37 ANSWER 10 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:259847 HCAPLUS
DOCUMENT NUMBER: 120:259847
TITLE: Occurrence and nature of different Tc(V) and Re(V) complexes with mercapto/amide ligands
AUTHOR(S): Johannsen, B.; Noll, B.; Leibnitz, G.; Reck, G.; Noll, St.; Spies, H.
CORPORATE SOURCE: Inst. Bioanorg. Radiopharm. Chem., Forschungszent., Dresden, D-01314, Germany
SOURCE: Radiochimica Acta (1993), 63, 133-7
CODEN: RAACAP; ISSN: 0033-8230
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The ligand exchange reaction of Tc(V) gluconate and Re(V) gluconate was carried out with mercaptoacetyl triglycine (MAG3), mercaptoacetyl diglycine (MAG2) and mercaptoacetyl glycine (MAG1) as well as their Me esters. In dependence on the ligand/metal molar ratio up to 3 complexes are obtained. A single x-ray structure detn. was carried out for the Ph4As+ salt of [TcO(MAG2)]-. MAG2 Me ester and MAG1 form 2:1 complexes as the main products.
IT **66516-08-3DP**, **technetium** complexes **66516-09-4DP**, **technetium** complexes **154150-08-0DP**, rhenium and **technetium** complexes **154150-09-1DP**, **technetium** complexes
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

L37 ANSWER 11 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:186299 HCAPLUS
DOCUMENT NUMBER: 120:186299
TITLE: 99mTc-labeling of mercaptoacetyltriglycine and its related compounds
AUTHOR(S): Kornyei, J.; Torko, J.; Volford, J.
CORPORATE SOURCE: Inst. Isot. Co. Ltd., Budapest, H-1121, Hung.

SOURCE: Journal of Radioanalytical and Nuclear Chemistry (1994), 186(2), 189-97
CODEN: JRNCDM; ISSN: 0236-5731
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Mercaptoacetyltriglycine and its related compds. were synthesized and labeled with 99mTc to study the effect of substituents and labeling conditions upon the formation of radioactive byproducts. Direct labeling and ligand exchange reactions were followed by radio-TLC sepn. The direct labeling in alk. media at elevated temp. provides high radiochem. yields and gives an opportunity for a new kit formulation because the neutralization to physiol. pH does not cause any change in the chem. identity of the complexes. Compds. with the strongly polar sulfonyl groups show significantly lower protein binding compared with mercaptoacetyltriglycine and may be considered as potential renal agents.

IT **66516-08-3**, Mercaptoacetyldiglycine **66516-09-4**, Mercaptoacetyltriglycine
RL: BIOL (Biological study)
(**technetium**-99m labeling of, kidney scintigraphy in relation to)

L37 ANSWER 12 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:93865 HCAPLUS
DOCUMENT NUMBER: 120:93865
TITLE: Technetium and rhenium complexes of mercapto-containing peptides. 1. Tc(V) and Re(V) complexes with mercaptoacetyl diglycine (MAG2) and X-ray structure of AsPh4[TcO(MAG2)].cntdot.C2H5OH
AUTHOR(S): Johannsen, Bernd; Noll, Bernhard; Leibnitz, Peter; Reck, Guenter; Noll, Steffi; Spies, Hartmut
CORPORATE SOURCE: Forschungszentrum Rossendorf e.V., Institut fuer Bioanorganische und Radiopharmazeutische Chemie, POB 19, Dresden, D-8051, Germany
SOURCE: Inorganica Chimica Acta (1993), 210(2), 209-14
CODEN: ICHAA3; ISSN: 0020-1693
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The reaction of mercaptoacetyl diglycine (MAG2) with Tc(V) gluconate in aq. soln. produced [TcO(MAG2)]-. A single-crystal x-ray structure detn. was carried out for the AsPh4+ salt. The dark brown crystals are monoclinic, space group P21/n, a 12.478(5), b 14.922(5), c 17.183(9) .ANG., .beta. 103.13(4).degree., Z = 4, R = 0.033. [TcO(MAG2)]- has a square pyramidal geometry with the Tc displaced by 0.756 .ANG. towards the oxo ligand from the plane formed by the equatorial S,N,N,O atoms. AsPh4[ReO(MAG2)] was prepd. analogously starting from Re(V) gluconate and characterized.

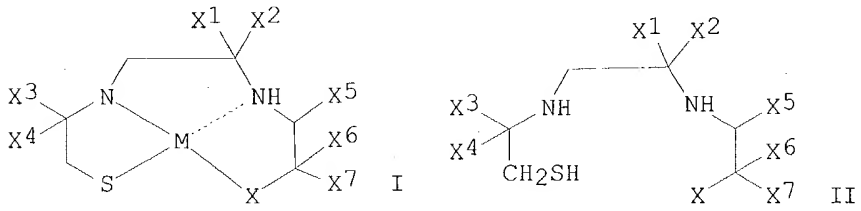
IT **66516-08-3P**, Mercaptoacetyl diglycine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with rhenium or **technetium** gluconates)

L37 ANSWER 13 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:685181 HCAPLUS
DOCUMENT NUMBER: 119:285181
TITLE: Method for preparation of metal complexes of sulfur-containing amino acid derivatives
INVENTOR(S): Biro, Gyula; Imre, Janos; Kern, Jozsef; Kornyei, Jozsef
PATENT ASSIGNEE(S): MTA Izotopkutato Intezet, Hung.
SOURCE: Hung. Teljes, 15 pp.
CODEN: HUXXBU
DOCUMENT TYPE: Patent

LANGUAGE: Hungarian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
HU 59931	A2	19920728	HU 1990-8351	19901220

OTHER SOURCE(S): MARPAT 119:285181
GI



AB The homonuclear title complexes [I; X = N(CH2)1-12COOR (R = H or C1-3 alkyl); X1 and X2 are sep. H atoms or they together represent 1 oxo group; X3 = H, X4 = COOR1 (R1 = H, Et, or iso-Pr) or X3 and X4 together represent 1 oxo group; X5 = H or COOR2 (R2 = H, Et, iso-Pr or (CH2)1-12OH); X6 and X7 are sep. H atoms or they together represent 1 oxo group; M = metal] (radioisotope labeled of required) are prepd. by reacting a soln. of the reagent [II; where X1, X2, X3, X4, X5, X6, and X7 are the same substituents as above and X = SH or NH(CH2)1-12R] with M1(HEO4)2.(1-8)H2O (M1 = Ce, Ti, and Zr; E = As, P, S), removing the solvent, and interacting the product with MA (A = anion). The complexes are well defined. Complexes with high specific radioactivity can be prepd. simply. Their in vitro and in vivo stability is improved. A no. of additives and complex buffer systems are obviated. The insol. inorg. matrix is removed in a single step by bacterium filtration assuring the sterility and pyrogen-free nature of the resultant metal complex solns. Expensive subsequent purifn. is completely obviated. Thus, mercaptoacetyltriglycine 4 mmol was reacted as 0.05 mL/dm3 aq. soln. soln. with cryst. Zr(HPO4)2 hydrate 30.2 mg at lab. temp. for 4 h. The solvent was removed by lyophilization and the ampul was closed. Radioactive labeling was carried out by isotope exchange with carrier-free 111In-InCl3 (.ltoreq.185 Mbq/ampul) for 15 min. Sterility was assured by Millipore filtration (0.22 .mu.m). The resultant labeled complex is suitable for kidney studies.

IT **66516-09-4**, Mercaptoacetyltriglycine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in prepn. of **radiolabeled** metal complexes)

L37 ANSWER 14 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:512284 HCAPLUS
DOCUMENT NUMBER: 119:112284
TITLE: Diagnostic radiopharmaceutical dose estimate to the Australian population
AUTHOR(S): Colmanet, Silvano F.; Samuels, David L.
CORPORATE SOURCE: Aust. Radiat. Lab., Yallambie, 3085, Australia
SOURCE: Health Physics (1993), 64(4), 375-80
CODEN: HLTPAO; ISSN: 0017-9078
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The annual per caput ED and the genetically significant dose to the Australian population, arising from the practice of nuclear medicine, were estd. from the results of a survey of all major hospitals. The survey was

conducted for a 4-wk time period during June-July 1991. Patients were characterized by age and gender. The use of diagnostic radiopharmaceuticals resulted in values of 64 .mu.Sv and 26 .mu.Sv per caput for ED and the genetically significant dose, resp. The ED has shown a marked increase in the last decade. These values may be compared to the estd. 2 mSv from natural background radiation.

IT **66516-09-4D, technetium**-99m complexes
RL: PROC (Process)
(dosimetry of, in population in Australia from diagnostic radiol.)

L37 ANSWER 15 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:164242 HCAPLUS
DOCUMENT NUMBER: 118:164242
TITLE: Determination of radiochemical and chemical purity of technetium-99m-mercaptoacetyltriglycine radiopharmaceutical preparation and of the parent compound by RP HPLC method
AUTHOR(S): Lengyel, J.; Angelis, B.
CORPORATE SOURCE: Nucl. Res. Inst., Rez, Czech.
SOURCE: Nucleon (Rez, Czech Republic) (1992), (4), 21-4
CODEN: NLEQEM; ISSN: 1210-2660
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Chem. and radiochem. purities of a raw substance (benzoylmercaptoacetyltriglycine produced at the NRI Rez) and of the chelate of mercaptoacetyltriglycine with 99mTc were detd. by using RP HPLC method. The chem. purity of benzoylmercaptoacetyltriglycine obtained by this method is equal to or higher than 99.70% and the radiochem. purity of 99mTc mercaptoacetyltriglycine is higher than 98%.
IT **66516-09-4D, technetium**-99 complexes
RL: PRP (Properties)
(purity of, reversed-phase HPLC for detn. of)

L37 ANSWER 16 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:141585 HCAPLUS
DOCUMENT NUMBER: 118:141585
TITLE: Nuclear translocation of aflatoxin B1-protein complex
AUTHOR(S): Ch'ih, John J.; Ewaskiewicz, Joseph I.; Taggart, Pamela; Devlin, Thomas M.
CORPORATE SOURCE: Sch. Med., Hahnemann Univ., Philadelphia, PA, 19102-1192, USA
SOURCE: Biochemical and Biophysical Research Communications (1993), 190(1), 186-91
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The in vitro binding of [3H]aflatoxin B1 (AFB1) to various proteins was studied by equil. dialysis. At 23.degree., [3H]AFB1 binding activity (mmol/mol) decreased as follows: pyruvate kinase > albumin-nuclear localization sequence (NLS) > albumin-NLS > albumin > carbonic anhydrase > RNase > histones. The nuclear translocation and activation of AFB1 and AFB-protein complexes was investigated using isolated rat liver nuclei in the presence of ATP and a NADPH regenerating system. Proteins contg. NLS such as histones and albumin-NLS facilitated AFB1 translocation into the nucleus where activation and adduct formation took place.
IT **146509-03-7D, conjugates** with albumin
RL: BIOL (Biological study)
(binding of, with aflatoxin B1, aflatoxin B1-protein complex liver nuclear translocation in relation to)

L37 ANSWER 17 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:120055 HCAPLUS
DOCUMENT NUMBER: 118:120055

TITLE: Clearance and distribution parameters of 99mTc-EHIDA, -DTPA and -MAG-3 by dynamic liver/kidney scintigraphy
AUTHOR(S): Blaha, V.; Cihak, I.; Nicek, F.
CORPORATE SOURCE: Med. Sch., Charles Univ., Srobarova, 48 100 42, Czech.
SOURCE: Nuclear Medicine and Biology (1993), 20(1), 89-93
CODEN: NMBIEO; ISSN: 0883-2897
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The radiopharmaceuticals (RF) EHIDA, DTPA, and MAG-3 (labeled by 99mTc), commonly used in dynamic liver/kidney scintigraphy, are distributed in intravascular (i.v.) and extravascular (e.v.) spaces, as they are simultaneously cleared from the blood passing through their target organ (liver/kidney). The drop in concn. of these RF in blood is therefore detd. by distribution as well as by clearance up to the time of equil. From that time, only the rate of decrease of RF in blood expressions the "true" (liver/kidney) clearance and this clearance parameter is a clin. reliable index of the function of the target organ. The method of anal. of the clearance curve obtained from the heart region has been reported; the method is based on a physiol. approach with respect to the distribution processes of the RF in the organism. The results of 218 patients examd. using 99mTc-EHIDA, 192 using -DTPA, and 65 using -MAG-3 have been statistically processed. The main purpose of the work was to obtain the reliable clearance parameters of the RF with extravascular distribution for routine clin. practice. The 2nd purpose was to contribute to the knowledge regarding the distribution processes of these compds. in their distribution spaces.

IT **66516-09-4D, technetium**-99 complexes
RL: BIOL (Biological study)
(clearance and biodistribution of, kidney and liver scintigraphy in relation to)

L37 ANSWER 18 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:647830 HCAPLUS
DOCUMENT NUMBER: 117:247830
TITLE: Studies on new technetium-99m-labeled renal imaging agents. II. Synthesis of technetium-99m-MAG2 and imaging comparison with technetium-99m-MAG3 and technetium-99m-DTPA
AUTHOR(S): Luo, Shunzhong; Liu, Zhonglin; Zhao, Pengji; Fu, Yibei; Liu, Shijun
CORPORATE SOURCE: Southwest Inst. Nucl. Phys. Chem., Chengdu, Peop. Rep. China
SOURCE: Tongweisu (1991), 4(3), 137-42
CODEN: TONGEM; ISSN: 1000-7512
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Changing the length of the peptide chain of MAG3 (mercaptoacetyltriglycine), a new ligand, Bz-MAG2 (benzoylthioacetyldiglycine), was synthesized. The effects of the pH value, reaction temp., and reaction time on the formation of 99mTc-MAG2 were studied and a prepn. procedure with a complexing yield up to 98% was established. In rabbit kidneys, both the imaging quality and excretion rate of 99mTc-MAG2 were superior to those of 99mTc-DPTA but slightly inferior to those of 99mTc-MAG3.

IT **66516-08-3DP, technetium**-99 complexes
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of and scintigraphy with, of kidney)

L37 ANSWER 19 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:627232 HCAPLUS
DOCUMENT NUMBER: 117:227232
TITLE: Gene transfer into hepatocytes using asialoglycoprotein receptor mediated endocytosis of

DNA complexed with an artificial tetra-antennary galactose ligand
AUTHOR(S): Plank, Christian; Zatloukal, Kurt; Cotten, Matt; Mechtler, Karl; Wagner, Ernst
CORPORATE SOURCE: Res. Inst. Mol. Pathol., Vienna, A-1030, Austria
SOURCE: Bioconjugate Chemistry (1992), 3(6), 533-9
CODEN: BCCHES; ISSN: 1043-1802
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An artificial ligand for the hepatocyte-specific asialoglycoprotein receptor was developed for the purpose of generating a synthetic delivery system for DNA. This ligand has a tetra-antennary structure, contg. 4 terminal galactose residues on a branched carrier peptide. The carbohydrate residues of this glycopeptide were introduced by reductive coupling of lactose to the .alpha.- and .epsilon.-amino groups of the 2 N-terminal lysines on the carrier peptide. The C-terminus of the peptide, contg. a cysteine sepd. from the branched N-terminus by a 10-amino acid spacer sequence, was used for conjugation to 3-(2-pyridyldithio)propionate-modified polylysine via disulfide bond formation. Complexes contg. plasmid DNA bound to these galactose-polylysine conjugates have been used for asialoglycoprotein receptor-mediated transfer of a luciferase gene into human (HepG2) and murine (BNL CL.2) hepatocyte cell lines. Gene transfer was strongly promoted when amphipathic peptides with pH-controlled membrane-disruption activity, derived from the N-terminal sequence of influenza virus hemagglutinin HA-2, were also present in these DNA complexes. Thus, the small functional domains of two large proteins, asialoglycoprotein and hemagglutinin, were borrowed and were assembled into a supramol. complex to generate an efficient gene-transfer system.

IT **144269-59-0DP**, polylysine **conjugate**
RL: PREP (Preparation)
(prepn. and use in asialoglycoprotein receptor-mediated gene transfer of)

L37 ANSWER 20 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:566771 HCAPLUS
DOCUMENT NUMBER: 117:166771
TITLE: Preparation of the renal function and imaging agent technetium-99m-MAG3 starting from S-unprotected mercaptoacetyltriglycine
AUTHOR(S): Noll, B.; Johannsen, B.; May, K.; Spies, H.
CORPORATE SOURCE: Cent. Inst. Nucl. Res., Rossendorf, Dresden, 8051, Germany
SOURCE: Applied Radiation and Isotopes (1992), 43(7), 899-901
CODEN: ARISEF; ISSN: 0883-2889
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A new approach that obviates inconvenient heating of the labeling soln. when prepg. the renal function and imaging agent 99mTc-MAG3 is described. The labeling procedure involves redn. of 99mTc-generator eluate with SnCl2 in alk. soln. in the presence of S-unprotected mercaptoacetyltriglycine (MAG3) and the coligand sodium tartrate, followed by neutralization with a phosphate buffer soln. After optimization of the kit prepn. the radiochem. purity of the radiopharmaceutical amts. to >98%. During the labeling process intermediate Tc-species occur.

IT **66516-09-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and complexation of, with **technetium**-99m)

IT **66516-08-3DP**, **technetium** 99 complexes
66516-09-4DP, **technetium** 99 complexes
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of and renal function imaging by)

L37 ANSWER 21 OF 42 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1992:518497 HCAPLUS
DOCUMENT NUMBER: 117:118497
TITLE: Antibody conjugates for targeted drug delivery
INVENTOR(S): Morgan, Alton C., Jr.; Srinivasan, Ananthachari; Reno, John M.; Fritzberg, Alan R.; Anderson, David C.
PATENT ASSIGNEE(S): NeoRx Corp., USA
SOURCE: U.S., 22 pp. Cont.-in-part of U.S. Ser. No. 157,895 abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5106951	A	19920421	US 1989-332610	19890331
EP 329184	A2	19890823	EP 1989-102809	19890217
EP 329184	A3	19900523		

R: DE, FR, GB, IT, SE

PRIORITY APPLN. INFO.: US 1988-157895 19880219
EP 1989-102809 19890217

AB Drugs are complexed with complementary structure (csDBM), which bind noncovalently with the drug and covalently to a targeting antibody or carrier. The noncovalent binding does not compromise the potency of the drug. FMN, used as csDBM for doxorubicin, was 1st derivatized with maleimide, then complexed with doxorubicin, followed by conjugation with an antibody.

IT **143090-37-3 143090-38-4 143090-39-5**
RL: BIOL (Biological study)
(doxorubicin binding by, for complexation and **conjugation** in targeted drug delivery systems)

L37 ANSWER 22 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:507807 HCAPLUS
DOCUMENT NUMBER: 117:107807
TITLE: Use of fibronectin having a variable included Type III repeat sequence as a marker for toxemia in pregnancy and immunoassay
INVENTOR(S): Peters, John H.; Lockwood, Charles J.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5108898	A	19920428	US 1989-298622	19890118

AB The elevation, in a pregnant woman, of human cellular fibronectin monomers having a variably included Type III repeat, as early as the 1st trimester, has been found to precede the onset of the clin. manifestations of toxemia and correlate with the severity of the disease state. Antibodies to ED1 or ED2 Type III repeat region (sequences presented) are used in immunoassays to det. the amt. of fibronectin having a variably included Type III repeat in a body fluid sample. A 29-amino acid residue peptide having the sequence: TYSSPEDGIHELFPAPDGEEDTAELQGGC (based on ED1) was synthesized, coupled to keyhole limpet hemocyanin, and used to raise antibodies in goats. The antibodies were used in an ELISA of blood plasma samples from pregnant women.

IT **142770-36-3D**, hemocyanin **conjugates**

RL: ANST (Analytical study)
(for antibodies prodn. for toxemia of pregnancy ELISA)

L37 ANSWER 23 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:578869 HCAPLUS
DOCUMENT NUMBER: 115:178869
TITLE: Two-component kit with nonradioactive precursor for the preparation of an enantiomeric form of the liver function diagnostic agent, technetium-99m-labeled mercaptoacetyltriglycine
INVENTOR(S): Noll, Bernhard; Johannsen, Bernd; Muenze, Rudolph; Spies, Hartmut
PATENT ASSIGNEE(S): Zentralinstitut fuer Kernforschung Rossendorf, Germany
SOURCE: Eur. Pat. Appl., 4 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 427360	A2	19910515	EP 1990-250271	19901023
EP 427360	A3	19910605		
EP 427360	B1	19940615		
R: AT, DE, FR, GR, IT, NL				
DD 288751	A5	19910411	DD 1989-334034	19891030
DD 288751	B5	19940721		
DD 288752	A5	19910411	DD 1989-334035	19891030
DD 288752	B5	19940609		
HU 58920	A2	19920330	HU 1990-6944	19901030
HU 206774	B	19921228		
CZ 278025	B6	19930317	CZ 1990-5316	19901030
SK 277878	B6	19950607	SK 1990-5316	19901030

PRIORITY APPLN. INFO.: DD 1989-334034 19891030
DD 1989-334035 19891030

AB The 1st kit component comprises a lyophilized mixt. of mercaptoacetyltriglycine (MAG-3), a coligand which stabilizes the oxidn. stage +5 of Tc, a reducing agent, and an alkali metal or alk.-earth metal hydroxide. The coligand is a tartrate or gluconate. The 2nd kit component is a phosphate buffer soln., contg. acid corresponding to a molar ratio of MAG-3/hydroxide. MAG-3 was prepd. by sapon. of benzoyl-MAG-3 with NaOMe in MeOH. A kit was made, having as a 1st component a mixt. of MAG-3 0.2, di-Na tartrate-2H2O 22, NaOH 1.72 mg, and 60 .mu.g SnCl2.2H2O, and as the 2nd component a mixt. of 0.1M Na2HPO4 1.638, 0.1M NaH2PO4 0.382, and 1N HCl 0.04 mL. Prior to use, the 1st component was labeled with 99mTc reactor eluate and mixed with the 2nd component.

IT **66516-09-4D, technetium**-99 complexes
RL: PROC (Process)
(as kidney function diagnostic agent, kit for prepn. of)

IT **66516-09-4**
RL: ANST (Analytical study)
(kit contg., for prepn. of metastable **technetium**-99-labeled diagnostic agent for kidney function detn.)

L37 ANSWER 24 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:499411 HCAPLUS
DOCUMENT NUMBER: 115:99411
TITLE: Polyamide conjugates with peptide containing helper T-cell epitope as site-directed immunologic agents
INVENTOR(S): Arlinghaus, Ralph B.; Sparrow, James T.
PATENT ASSIGNEE(S): University of Texas System, USA

SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9015627	A1	19901227	WO 1990-US767	19900209
W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU				
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG				
US 5126399	A	19920630	US 1989-368713	19890620
AU 9059581	A1	19910108	AU 1990-59581	19900209

PRIORITY APPLN. INFO.:
US 1989-368713 19890620
US 1986-858216 19860430
US 1989-368708 19890619
WO 1990-US767 19900209

AB Peptidyl-resin conjugates are made of an immunogenic/antigenic peptide conjugated to a polyamide resin, wherein the peptide incorporates a helper T-cell epitope. The inclusion of a T-cell epitope in this peptide sequence provides benefits in the prepn. of site-directed reagents intended as immunogens. A synthetic peptide predicted from Abelson murine leukemia virus abl oncogene (residues 389-403) was synthesized with a T-cell active epitope of 7 amino acids placed at its N-terminus (T-abl-resin). The T-abl-resin construct stimulated the immune response in rabbits, giving significantly higher specific antibody titers than abl-resin controls. The conjugates may be used in immunoassays and manufg. vaccines.

IT **135236-49-6DP, conjugate** to polyimide resin
RL: PREP (Preparation)
(prepn. of, as site-directed immunogen)

L37 ANSWER 25 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:400778 HCAPLUS
DOCUMENT NUMBER: 115:778
TITLE: Covalently-linked complexes and methods for enhanced cytotoxicity and imaging
INVENTOR(S): Anderson, David C.; Morgan, A. Charles; Abrams, Paul G.; Nichols, Everett J.; Fritzberg, Alan R.
PATENT ASSIGNEE(S): NeoRx Corp., USA
SOURCE: Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 359347	A2	19900321	EP 1989-250014	19890814
EP 359347	A3	19900418		
EP 359347	B1	19921223		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 5135736	A	19920804	US 1988-232337	19880815
US 5169933	A	19921208	US 1989-390241	19890807
CA 1334513	A1	19950221	CA 1989-608198	19890811
JP 02124833	A2	19900514	JP 1989-209992	19890814
AT 83669	E	19930115	AT 1989-250014	19890814

PRIORITY APPLN. INFO.:
US 1988-232337 19880815
EP 1989-250014 19890814

AB Covalently-linked complexes (CLCs) for targeting a defined population of cells comprise a targeting protein (e.g. antibody, hormone, enzyme, etc.), a cytotoxic agent (e.g. radionuclide, toxin, drug, etc.) an enhancing moiety capable of enhancing CLC-target cell interaction (e.g. a translocating/internalizing moiety, an anchoring peptide, membrane-sol. hydrophobic mol., etc.). The CLCs are used to enhance in vivo cytotoxicity and imaging (no data). Translocating peptide, Cys-Gly-Glu-Ala-Ala-Leu-Ala(Glu-Ala-Leu-Ala)4-Glu-Ala-Leu-Glu-Ala-Leu-Ala-Ala-NH2, is conjugated via succinimidyl 4(N-maleimidemethyl)cyclohexane-1-carboxylate (SMCC) to reduced toxin A chain. The conjugate is reacted with iminothiolane to generate further thiol groups which are then bonded to reduced antibody to prep. translocating peptide-ricin A chain-antibody CLC.

IT **131399-96-7D, conjugates** with cytotoxic agent and targeting protein **131400-07-2D, conjugates** with cytotoxic agent and targeting protein **131400-08-3D, conjugates** with cytotoxic agent and targeting protein
RL: BIOL (Biological study)
(cell targeting with, for enhanced cytotoxicity and imaging)

L37 ANSWER 26 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:139080 HCAPLUS
DOCUMENT NUMBER: 114:139080
TITLE: Rhenium-186 radioimmunotherapy of small cell lung carcinoma xenografts in nude mice
AUTHOR(S): Beaumier, Paul L.; Venkatesan, Prasanna; Vanderheyden, Jean Luc; Burgua, William D.; Kunz, Lawrence L.; Fritzberg, Alan R.; Abrams, Paul G.; Morgan, Alton C., Jr.
CORPORATE SOURCE: NeoRx Corp., Seattle, WA, 98119, USA
SOURCE: Cancer Research (1991), 51(2), 676-81
CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A 186Re-labeled monoclonal antibody (MAb), NR-LU-10, was used for the radioimmunotherapy of a s.c. human small cell lung carcinoma xenograft, SHT-1, in nude mice. Biodistribution with specific and irrelevant labeled MAb demonstrated peak tumor uptake of 8% and 3% of the injected dose/g at 2 days, resp. Dosimetry anal. predicted tumor:whole-body radiation-absorbed dose ratios of 2.43:1 for NR-LU-10 and 0.62:1 for irrelevant MAb. Single-dose toxicity screening estd. a 50% LD within 30 days of 600 .mu.Ci (880 cGy of whole-body radiation). As anticipated, a multiple-dose regimen of 490 .mu.Ci in 4 doses over 10 days (720 cGy of whole-body radiation, 8 of 8 surviving >30 days) was less toxic than a single bolus dose of 430 .mu.Ci (644 cGy of whole-body radiation, 6 of 8 surviving >30 days). A multidose radioimmunotherapy regimen was initiated in nude mice bearing 66-mm3 tumors (total dose, 500-600 .mu.Ci). Complete remissions (>140 days) were achieved in 3 of 16 mice, and the remainder showed a mean tumor growth delay of 53 days. Matched doses with irrelevant MAb produced 1 remission, 1 treatment-related death, and a mean growth delay of only 20 days in 6 of 8 mice. Thus, in this nonoptimal radioimmunotherapy model, significant antitumor responses were preserved using a mildly toxic multiple dosing regimen.

IT **132572-51-1DP**, complexes with 186Re
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and **conjugation** to monoclonal antibody)

L37 ANSWER 27 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:117823 HCAPLUS
DOCUMENT NUMBER: 114:117823
TITLE: Biodistribution, pharmacokinetic, and imaging studies with rhenium-186-NR-LU-10 whole antibody in LS1741T colonic tumor-bearing mice

AUTHOR(S): Goldrosen, M. H.; Biddle, W. C.; Pancook, J.; Bakshi, S.; Vanderheyden, J. L.; Fritzberg, A. R.; Morgan, A. C., Jr.; Foon, K. A.
CORPORATE SOURCE: Div. Clin. Immunol., Roswell Park Cancer Inst., Buffalo, NY, 14263, USA
SOURCE: Cancer Research (1990), 50(24), 7973-8
CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: English

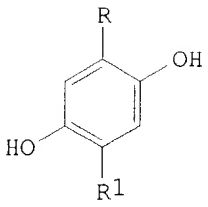
AB Biodistribution, pharmacokinetic, and radioimaging studies were performed with 186Re-labeled NR-LU-10 whole antibody in athymic nude mice bearing the LS174T tumor growing either s.c. or in an exptl. hepatic metastasis model. NR-LU-10 is an IgG2b murine monoclonal antibody (MAb) that reacts with virtually all human tumors of epithelial origin. NR-BC-1, an IgG2b murine MAb that reacts with normal human B-cell and B malignancies, was used as an isotype-matched control. These MAbs were radiolabeled with 186Re (3.7-day phys. half-life; 1.07-MeV .beta.-particle and 137-keV .gamma., 9% abundance) by a preformed chelate approach by using the triamide thiolate ligand system. 186Re-labeled NR-LU-10 (50 .mu.Ci) was injected into nude mice bearing LS174T tumors growing s.c. Biodistribution studies revealed that the LS174T tumor retained the highest concn. of 186Re-labeled NR-LU-10 (5.3% injected dose/g) at day 6. The tumor-to-blood ratio ranged from 0.1:1 to 10.8:1 by day 6, the last day of anal. In contrast, the tumor-to-blood ratio of 186Re-labeled NR-BC-1, the isotype-matched MAb control, was 1:1 on day 6. Pharmacokinetic anal. indicated that the t1/2 .beta. of NR-LU-10 for blood and other tissues ranged 21-25 h, whereas the t1/2 .beta. for the LS174T tumor averaged 52 h. The area under the curve for tumor compared to blood as 2.8-5.7-fold higher than the area under the curve for all other tissues and organs. The mean residence time for NR-LU-10 in blood and all other organs ranged 23-26 h, whereas the mean residence time for NR-LU-10 in the LS174T tumor was 72 h. Scintigraphic images revealed selective uptake of the 186Re-labeled NR-LU-10, but not of the 186Re-labeled NR-BC-1, at the LS174T tumor site. Studies in an exptl. model of hepatic metastasis revealed a similar selective pattern of 186Re-labeled NR-LU-10 accumulation. Scintigraphic images of the LS174T tumor growing within the athymic nude mouse liver were obtained. The biodistribution, pharmacokinetic, and scintigraphic image results suggest that 186Re-labeled NR-LU-10 shows promise as a therapeutic agent for gastrointestinal cancer.

IT **132572-51-1**
RL: PRP (Properties)
(**conjugation** of, with rhenium-186-Perrhenate)

L37 ANSWER 28 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:568209 HCAPLUS
DOCUMENT NUMBER: 113:168209
TITLE: Compositions containing technetium-99m-labeled substances and dihydroxybenzenedisulfonate stabilizers for scintigraphy
PATENT ASSIGNEE(S): Solco Basel A.-G., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02019328	A2	19900123	JP 1988-159030	19880627

OTHER SOURCE(S): MARPAT 113:168209
GI



I

AB A medium for e.g. bone scintigraphy contains 99mTc-labeled substances and stabilizers I (R = H, sulfonyl, carboxymethyl; R1 = sulfonyl, carboxymethyl) or its salts. I is e.g. 2,5-dihydroxybenzene-1,4-disulfonic acid or its Na salt. Thus, an injection consists of 99mTc-methylenediphosphonate, SnCl2, and K2 2,5-dihydroxybenzene-1,4-disulfonate. The prepn. was stable as detd. by free pertechnetate content.

IT **66516-09-4D**, complexes with **technetium**-99m
RL: BIOL (Biological study)
(scintigraphy with media contg. dihydroxybenzenedisulfonate stabilizers and)

L37 ANSWER 29 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:568057 HCAPLUS
DOCUMENT NUMBER: 113:168057
TITLE: An investigation of factors that might influence the radiochemical purity and stability of 99mTc-MAG3
AUTHOR(S): Millar, A. M.; O'Brien, L. M.
CORPORATE SOURCE: R. Infirm., Edinburgh, EH3 9YW, UK
SOURCE: Eur. J. Nucl. Med. (1990), 16(8-10), 615-19
CODEN: EJNMD9; ISSN: 0340-6997
DOCUMENT TYPE: Journal
LANGUAGE: English

AB 99mTc-mercaptoacetyltriglycine (99mTc-MAG3) was prepd. from a com. kit by various techniques to assess the effect of a no. of variables on radiochem. purity and stability. Its radiochem. purity was detd. by HPLC at 0 and 6 h after prepn. and was found to be consistently >95%. It has been demonstrated that the radiochem. purity of 99mTc-MAG3 prepd. according to the manufacturer's instructions is not influenced by the vol. of 99Tc generator eluate used, agitation, the presence of air in the reaction vial or the use of a 99mTc generator eluate with a 99Tc:99mTc ratio of 16:1. A modified method of prepn. in which the MAG3 kit is reconstituted with saline before addn. of [99mTc]pertechnetate has been shown to yield a satisfactory product and should help to minimize the radiation dose to the fingers of radiopharmacy staff.

IT **66516-09-4DP**, **technetium**-99 complexes
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and radiochem. purity and stability of metastable, kidney scintigraphy in relation to)

L37 ANSWER 30 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:455132 HCAPLUS
DOCUMENT NUMBER: 113:55132
TITLE: Synthesis and animal studies of technetium-99m MAG3 [mercaptoacetylglycylglycylglycine] a renal function imaging agent
AUTHOR(S): Gao, Weizhen; Chen, Fang; Li, Yuping; Wang, Shizhen; Lu, Liyi
CORPORATE SOURCE: PUMC Hosp., Chin. Acad. Med. Sci., Beijing, Peop. Rep.

China
SOURCE: Hejishu (1990), 13(1), 57-60
CODEN: NUTEDL; ISSN: 0253-3219
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB 99mTc-labeled MAG3 was synthesized based on the method described by A. R. Fritzberg et al. (1986). After i.v. injection, the biodistribution of 99mTc-MAG3 and o-[131I]iodohippurate (OIH) in blood, kidney, liver, stomach, intestine, and urine of mice was detd. Both MAG3 and OIH were excreted mainly via urine, and probenecid treatment reduced MAG3 and OIH excretion in urine. 99mTc-MAG3 and OIH were used successfully for renal imaging of rabbits. 99mTc-MAG3 is potentially useful for replacing 131I-OIH as a renal imaging agent.
IT **66516-09-4D**, complexes with **technetium**-99
RL: BIOL (Biological study)
(metab. and biodistribution of and scintig. of kidney with)

L37 ANSWER 31 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:213179 HCAPLUS
DOCUMENT NUMBER: 112:213179
TITLE: Different technetium complexes with mercaptoacetyltriglycine
AUTHOR(S): Johannsen, B.; Noll. B.; Heise, K. H.; May, K.; Spies, H.; Hoffmann, I.; Hoffmann, S.; Kloetzer, D.; Reiss, H.; et al.
CORPORATE SOURCE: Charite Hosp., Humboldt Univ., Berlin, DDR-1040, Ger. Dem. Rep.
SOURCE: Isotopenpraxis (1990), 26(3), 97-101
CODEN: IPRXA9; ISSN: 0021-1915
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Various Tc(V) complexes with mercaptoacetylglycylglycylglycine (MAG3) were prepd. from TcO4- via Tc(V) gluconate or tartrate by redn. with SuCl2 and simultaneous or subsequent reaction of the intermediate with unprotected MAG3. By varying the reaction conditions (pH, reaction time, temp., concns., and molar ratios), 4 complexes (of which 2 were closely related) in addn. to the known Tc(V) oxo complex employed in kidney function tests were obtained. HPLC, thin-layer chromatog., electrophoresis, and UV-vis spectroscopy were employed to characterize the complexes, and biodistribution studies in guinea pigs with the 99mTc derivs. revealed differences in their excretion. The complexes were not unequivocally identified.
IT **66516-09-4DP**, **technetium**-99 complexes
RL: BPR (Biological process); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(prepn. and metab. of, kidney scintigraphy in relation to)

L37 ANSWER 32 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:610697 HCAPLUS
DOCUMENT NUMBER: 111:210697
TITLE: Location of a contact site between actin and myosin in the three-dimensional structure of the acto-S1 complex
AUTHOR(S): Kasprzak, Andrzej A.; Chaussepied, Patrick; Morales, Manuel F.
CORPORATE SOURCE: Cardiovasc. Res. Inst., Univ. California, San Francisco, CA, 94143-0524, USA
SOURCE: Biochemistry (1989), 28(23), 9230-8
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Using fluorescence resonance energy transfer (FRET), distances from chromophores located at or near the actin-binding stretch of amino acids 633-642 of myosin subfragment 1 (S1) to 5 points in the acto-S1 complex

were measured. Specific labeling of this site was achieved by first attaching the desired chromophore to an antipeptide that, by means of its charge complementarity, specifically birds to this segment of S1 and then crosslinking the fluorescent peptide to the protein. According to this technique, antipeptides contg. 3 different labels, viz., N-dansylaziridine, (iodoacetamido)fluorescein, and monobromobimane, were purified and covalently bound to S1. A second chlomophoric group, required for FRET measurements, was selected in such a way as to provide a good spectral overlap with the corresponding peptide chlomophore. Cysteine (Cys)-707 (SH1) and Cys-697 (SH)) on S1 were modified by using iodoacetamido and maleimido derivs. of rhodamine, 1,N6-ethenoadenosine 5'-diphosphate was trapped at the S1 active site with orthovanadate, Cys-374 on actin was modified with either N-[4-[[4-(dimethylamino)phenyl]azo]phenyl]maleimide or N-[[(iodoacetyl)amino]ethyl]-5-naphthylamtheno analog. By use of excited-state lifetime fluorometry, the following distances from the stretch 633-642 of S1 to other points on S1 or actin were measured: Cys-707 (S1), 50.3 .ANG.; Cys-697 (S1), 49.4 .ANG.; active site of S1, .gtoreq.44 .ANG., nucleotide binding site (actin), 41.4 ; and Cys-374 (actin), .apprx.53 .ANG.. Addn. of MgATP had a small effect on the distance between the peptide and Cys-707, increasing it by .apprx.2%, whereas it had a more pronounced effect on the distance between the peptide and Cys-697, where an increase of 14% was obsd. The effect of actin on these 2 distances was negligible. These data enabled one (1) to place for the first time an interprotein contact in the 3-dimensional map of the acto-S1 complex, (2) to definitively exclude models of communication between the nucleotide and actin binding sites in S1 that involve direct contact or close proximity of these 2 loci of S1, and (3) detect intraprotein motion in S1 induced by binding of MgATP to the protein.

IT **118407-76-4DP**, derivs., myosin subfragment 1 **conjugates**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

L37 ANSWER 33 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:570213 HCAPLUS
DOCUMENT NUMBER: 111:170213
TITLE: Comparison of technetium-99m-MAGAG-DA and technetium-99m-MAG3 in human volunteers
AUTHOR(S): Verbruggen, A.; Bormans, G.; Vandecruys, A.; Verhaegen, L.; Devos, P.; De Roo, M.
CORPORATE SOURCE: Univ. Hosp. Gasthuisberg, Louvain, B-3000, Belg.
SOURCE: Nuklearmedizin, Suppl. (Stuttgart) (1989), 25(Trends Possibilities Nucl. Med.), 440-2
CODEN: NMBSAG; ISSN: 0550-3175
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The renal imaging agents 99mTc-mercaptoacetyltriglycine (MAG3) and 99mTc-mercaptoacetylglycyl-D-alanylglycine (MAGAG-DA) were compared in human volunteers. 99mTc-MAGAG-DA gave a superior renogram due to its higher plasma clearance, higher urinary excretion, lower retention in liver, and shorter time to renal max. However, it was less practical for routine work because it requires an HPLC purifn. step.

IT **66516-09-4D**, complexes with **technetium**-99
RL: BIOL (Biological study)
(scintigraphy with, of kidney, **technetium**-99m-mercaptoacetylglycylalanylglycine comparison with)

L37 ANSWER 34 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:570212 HCAPLUS
DOCUMENT NUMBER: 111:170212
TITLE: Separation of the enantiomers of technetium-99m-MAG3 and their renal excretion in baboons and a volunteer
AUTHOR(S): Verbruggen, A.; Bormans, G.; Cleynhens, B.;

Hoogmartens, M.; Vandecruys, A.; De Roo, M.
CORPORATE SOURCE: Univ. Hosp. Gasthuisberg, Louvain, B-3000, Belg.
SOURCE: Nuklearmedizin, Suppl. (Stuttgart) (1989), 25(Trends Possibilities Nucl. Med.), 436-9
CODEN: NMBSAG; ISSN: 0550-3175
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The renal tubular system has shown high stereospecificity for Me derivs. of technetium-99m-mercaptoacetyltriglycine (MAG3). It was thus of interest to develop a method to sep. isomers and compare their renal excretion characteristics. The enantiomers were first converted to diastereomeric ester derivs. and sepd. by reverse phase HPLC, followed by removal of the ester functional group. Plasma clearance, renal max. and excretion, and liver retention of the SA and SB enantiomers were compared. Plasma clearance of the SB enantiomer was slightly higher (20%) and the SA enantiomer retention by liver was more pronounced. However, there were insufficient differences between the enantiomers to justify their use over that of the racemic mixt. for renal function studies.

IT **66516-09-4D**, complexes with **technetium**-99
RL: BIOL (Biological study)
(enantiomeric resoln. and pharmacokinetics of, kidney scintigraphy in relation to)

IT **123228-58-0DP**, complex with **technetium**-99
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and isomeric resoln. and deprotection of)

L37 ANSWER 35 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:453446 HCAPLUS
DOCUMENT NUMBER: 111:53446
TITLE: Metal-radionuclide-labeled proteins and glycoproteins and their preparation for kiagnosis and therapy
INVENTOR(S): Fritzberg, Alan R.; Kasina, Sudhakar; Vanderheyden, Jean Luc; Srinivasan, Ananthachari
PATENT ASSIGNEE(S): NeoRx Corp., USA
SOURCE: Eur. Pat. Appl., 20 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 284071	A2	19880928	EP 1988-104755	19880324
EP 284071	A3	19900516		
EP 284071	B1	19940608		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 106898	E	19940615	AT 1988-104755	19880324
DK 8801654	A	19880927	DK 1988-1654	19880325
NO 8801332	A	19880927	NO 1988-1332	19880325
AU 8813751	A1	19880929	AU 1988-13751	19880325
AU 619738	B2	19920206		
CN 1034545	A	19890809	CN 1988-102772	19880325
CA 1328147	A1	19940329	CA 1988-562452	19880325
JP 01019058	A2	19890123	JP 1988-70902	19880326

PRIORITY APPLN. INFO.: US 1987-31440 19870326
EP 1988-104755 19880324
OTHER SOURCE(S): MARPAT 111:53446
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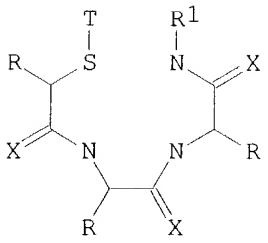

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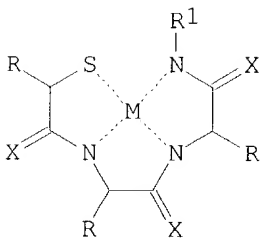


II

AB Metal thiotriaza chelating compds. I [T = H, S protecting group; X = H2, O; R = H, nonalkyl amino acid side chain (.noteq. cysteine), alkyl, geminal dialkyl, (CH2)nZ; Z = CO2H, conjugation group, targeting compd.; n = 1-4; R1 = H2, (CH2)nZ, polar group(s) substituted alkyl; where the compd. has .gtoreq.1 (CH2)nZ group] and chelates II (M = radionuclide; the rest as above) are prepd. and conjugated to proteins, glycoproteins, carbohydrates, or their fragments for use in diagnosis and therapy. Gly-Gly-Gly was reacted with benzoyl-protected thioglycolic acid succinimidate ester. The product was treated with 99mTc-pertechnetate to give 90-95% 99mTc-mercapto-Gly-Gly-Gly. The complex was esterified with 2,3,5,6-tetrafluorophenol and the ester was conjugated with antimelanoma IgG. Nude mice bearing melanoma xenographs were injected with the labeled conjugate. After 20 h the tumor had the highest percentage dose per g tissue. Low liver and spleen concns. (0.26, each) indicated good excretion patterns. Low stomach levels (0.23) indicated high stability, since loss of 99mTc as pertechnetate is seen as relatively high levels of radioactivity in stomach tissue.

IT **121557-57-1DP, technetium**-99 complexes
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, with antimelanoma IgG)

IT **66516-09-4DP, technetium**-99 complexes, antimelanoma IgG **conjugates**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, with tetrafluorophenol, melanoma targeting by)

L37 ANSWER 36 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:53848 HCAPLUS
DOCUMENT NUMBER: 110:53848
TITLE: Comparison of technetium-99m-labeled MAG3 kit with HPLC-purified technetium-99m-labeled MAG3 and OIH in rats
AUTHOR(S): Coveney, Joseph R.; Robbins, Mark S.
CORPORATE SOURCE: Mallinckrodt, Inc., Hazelwood, MO, 63042, USA
SOURCE: J. Nucl. Med. (1987), 28(12), 1881-7
CODEN: JNMEAQ; ISSN: 0022-3123
DOCUMENT TYPE: Journal
LANGUAGE: English

AB 99mTc-mercaptoacetylglycylglycylglycine (MAG3) in high (.gtoreq.95%) radiochem. purity is prepd. from lyophilized kits contg. benzoylMAG3, Na tartrate, lactose, and stannous chloride by adding Na [99mTc]pertechnetate and heating the contents briefly. Const.-infusion renal whole-blood clearance obtained with 99mTc-MAG3 kits was compared with that obtained with HPLC pure 99mTc-MAG3, and with co-infused [131I]iodohippurate (OIH) in anesthetized rats. Av. renal whole-blood clearance of [99mTc]MAG3 from kits wa 3.9 mL/min/100 body wt. (mean) and that for HPLC-pure 99m-MAG3 was 4.6. Renal whole blood clearance ratios for 99mTc-MAG3 to co-infused [131I]OIH were for both kit formulation (1.7) and HPLC-pure 99mTc-MAG3 (1.9). Differences in these 2 measures were not significant. Plasma binding (detd. from blood drawn at the end of the infusion) of 99mTc-MAG3 prepd. from both kits (75%) and HPLC-sepn. (76%) were greater than that of [131I]OIH in corresponding plasma samples (31 and 32%, resp.). Renograms

performed in anesthetized rats revealed no differences between kit-prepd. 99mTc-MAG3 and [131I]OIH in terms of time-to-peak renal activity (5.0 and 2.2 min, mean for 99mTc-MAG3 and [131I]OIH, resp.), in terms of time to fall to half-maximal activity (15.3 and 9.6 min, resp.), or in terms of fraction of peak radioactivity in right kidney (0.53 for both substances). To assess possible interference from hepatobiliary uptake and excretion in renal failure, radioactivity in liver regions of interest was followed by gamma camera scintigraphy for 30 min after i.v. injection of [131I]OIH and kit and HPLC-purified 99mTc-MAG3 in anesthetized rats rendered anephric by ligating renal peduncles. Liver activity was 25% of total for both prepns. of 99mTc-MAG3 and was 22% of total for [131I]OIH. There were no differences among the substances.

IT **66516-09-4D, technetium**-99 complexes
RL: BIOL (Biological study)
(metab. of and scintigraphy of kidney with, kit prepns. evaluation for)

L37 ANSWER 37 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:586394 HCAPLUS
DOCUMENT NUMBER: 109:186394
TITLE: Synthesis, radiochromatography and biodistribution of technetium-99m-mercaptoacetyltriglycine-technetium(V) (Tc99m-MAtG)
AUTHOR(S): Angelberger, Peter; Buchheit, Otto; Fally, Friedrich; Egger, Martin
CORPORATE SOURCE: Inst. Chem., Oesterr. Forschungszent. Seibersdorf G.m.b.H., Seibersdorf, A-2444, Austria
SOURCE: Oesterr. Forschungszent. Seibersdorf, [Ber.] OEFZS (1987), OEFZS-4428, 9 pp.
CODEN: OFSODK; ISSN: 0253-5270
DOCUMENT TYPE: Report
LANGUAGE: English

AB As the latest in a series of Tc99m-complexes, 99mTc-MAtG was recently suggested as replacement for 123I-o-iodohippuric acid (123I-oIHA) with specificity for the renal excretion pathway. In an optimization study the S-benzoyl protected ligand was synthesized in a 3 step sequence starting from mercaptoacetic acid and using peptide chem. methodol. The complex with a Tc(V)=O core was prepd. by dithionite redn. of n.c.a. 99mTc-TcO4- and purified from side-products by preparative HPLC. Product radiochem. purity was typically better than >98% by TLC and remained stable over 24 h. Biodistribution in mice demonstrated fast and specific renal excretion and clin. diagnostic results were equiv. to 123I-oIHA.

IT **66516-09-4DP, technetium** 99 complexes
RL: BOC (Biological occurrence); SPN (Synthetic preparation); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(prepn. and biodistribution of)

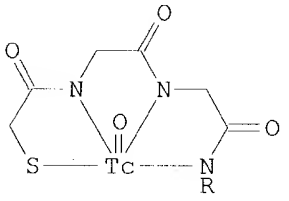
L37 ANSWER 38 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:545393 HCAPLUS
DOCUMENT NUMBER: 109:145393
TITLE: Biodistribution of complex impurities and steady state clearance of technetium-99m-MAG3
AUTHOR(S): Brandau, W.; Bubeck, B.; Eisenhut, M.; Taylor, D. M.
CORPORATE SOURCE: Dep. Nucl. Med., Univ. Heidelberg, Heidelberg, Fed. Rep. Ger.
SOURCE: Nuklearmedizin, Suppl. (Stuttgart) (1988), 24, 748-52
CODEN: NMBSAG; ISSN: 0550-3175
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The prepn., biodistribution in female Sprague-Dawley rats and humans, and scintigraphy in rats of 99mTc-MAG3 (mercaptoacetyltriglycine) were examd., using kit-prepd. and HPLC-purified 99mTc-MAG3 prepns. Scintiphotos in rats revealed that impurities B, C, and D must be excluded from 99mTc-MAG3 kit prepns. for renal imaging due to their high hepatobiliary excretion

whereas impurity A seems tolerable for kidney imaging. For HPLC-purified 99mTc-MAG3, its renal tubular excretion rate was only 67% of that of o-[131I]iodohippurate (OIH) in humans. The results indicate that 99mTc-MAG3 may be a useful agent for renal function studies, possibly replacing radioiodinated OIH.

IT **66516-09-4DP**, complexes with **technetium**-99
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and metab. of and scintigraphy of kidney with)

L37 ANSWER 39 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:182862 HCAPLUS
DOCUMENT NUMBER: 108:182862
TITLE: Animal evaluation of technetium-99m triamide mercaptide complexes as potential renal imaging agents
AUTHOR(S): Eshima, Dennis; Taylor, Andrew, Jr.; Fritzberg, Alan R.; Kasina, Sudhakar; Hansen, Lory; Sorenson, James F.
CORPORATE SOURCE: Dep. Radiol., Univ. Utah, Salt Lake City, UT, USA
SOURCE: J. Nucl. Med. (1987), 28(7), 1180-6
CODEN: JNMEAQ; ISSN: 0022-3123
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB 99mTc mercaptoacetylglycylglycylglycine (MAG3), a 99mTc triamide mercaptide (N3S) [I, where R = CH2COOH, CH2CONHCH2COOH, CH(CH3)COOH, CH(CH2C6H5)COOH, CH(COOH)CH2COOH, CH(COOH)CH2CONH2, CH(COOH)CH2CH2COOH, CH(COOH)CH2CH2CONH2] compd., has been synthesized in an attempt to obviate the stereochem. problems assocd. with the diamide dimercaptide (N2S2) ligands. Because initial studies have been promising, the terminal glycine on the MAG3 compd. has been varied to create a new series of N3S compds. Twelve new N3S complexes were initially screened in mice and the more promising complexes, 99mTc-MAG3, 99mTc mercaptoacetylglycylglycyl-L-alanine, 99mTc mercaptoacetylglycylglycyl-L-asparagine, and 99mTc mercaptoacetylglycylglycyl-L-glutamine, were further evaluated in rats utilizing const. infusion blood clearances, extn. efficiencies, and protein binding assays. The renal excretion of all these complexes compared favorably with simultaneously administered [131I]iodohippurate and [125I]iothalamate. The triamide mercaptide complexes represent a new ligand class for 99mTc, which may provide a variety of complexes for the evaluation of renal tubular function.

IT **66516-09-4 114115-72-9 114115-73-0**
114115-74-1 114115-75-2 114115-76-3
114115-77-4 114115-78-5
RL: BIOL (Biological study)
(**radiolabeling** of, with **technetium**-99m)

L37 ANSWER 40 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:163498 HCAPLUS
DOCUMENT NUMBER: 108:163498
TITLE: Characterization of prion proteins with monospecific antisera to synthetic peptides
AUTHOR(S): Barry, Ronald A.; Vincent, Marion T.; Kent, Stephen B.

H.; Hood, Leroy E.; Prusiner, Stanley B.
CORPORATE SOURCE: Dep. Neurol., Univ. California, San Francisco, CA, 94143, USA
SOURCE: J. Immunol. (1988), 140(4), 1188-93
CODEN: JOIMA3; ISSN: 0022-1767
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The prion protein (PrP) 27-30 is the major macromol. component in highly purified prepns. of prions derived from scrapie-infected hamster brain. Immunoblotting studies demonstrated that this protein is generated by partial protease digestion of a larger precursor (PrPSc) with an apparent mol. wt. of 33-35 kilodaltons, and that a protease-sensitive cellular-PrP isoform, designated PrPC, is present in normal hamster brain. To characterize the relationships among these proteins, ELISA and immunoblotting studies were undertaken with rabbit antisera raised against 3 synthetic PrP peptides. All 3 antisera specifically reacted with the prion proteins, and failed to identify other lower or higher mol. wt. PrP proteins. Thus, the primary structures of PrP 27-30, PrPSc, and PrPC are related; this conclusion supports mol. cloning studies indicating that these proteins are encoded by the same chromosomal gene.
IT **113944-83-5DP**, protein **conjugates** **113944-84-6DP**, protein **conjugates** **113960-59-1DP**, protein **conjugates**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antisera to, for prion protein characterization)

L37 ANSWER 41 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1987:400968 HCAPLUS
DOCUMENT NUMBER: 107:968
TITLE: Computer-aided design and physiological testing of a luteinizing hormone-releasing hormone analog for 'adjuvant-free' immunocastration
AUTHOR(S): Morrison, Christopher A.; Fishleigh, Robert V.; Ward, David J.; Robson, Barry
CORPORATE SOURCE: Dep. Cell. Struct. Biol., Univ. Oxford, Manchester, M13 9PT, UK
SOURCE: FEBS Lett. (1987), 214(1), 65-70
CODEN: FEBLAL; ISSN: 0014-5793
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An analog of LH-RH (LH-RH-Gly-Cys-OH) contg. an extension of Gly-Cys at the C-terminus was designed to permit reproducible coupling to a suitably modified carrier via a thioether bond. Potential energy calcns. indicated that this analog adopted a conformation in soln. virtually identical to the type II turn around Gly-6-Leu-7 predicted for native LH-RH. Intradermal administration of a conjugate of this analog with purified protein deriv. of tuberculin to male rats previously primed with BCG vaccine rapidly led to complete testicular regression. This adjuvant-free immunization protocol may represent an alternative to castration for the veterinary control of reproductive function.
IT **108635-48-9D**, tuberculin **conjugates**
RL: BIOL (Biological study)
(for immunocastration)

L37 ANSWER 42 OF 42 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1987:117762 HCAPLUS
DOCUMENT NUMBER: 106:117762
TITLE: Human kappa light chain subgroup analysis with synthetic peptide-induced antisera
AUTHOR(S): Silverman, Gregg J.; Carson, Dennis A.; Solomon, Alan; Fong, Sherman
CORPORATE SOURCE: Dep. Basic Clin. Res., Scripps Clin. Res. Found., La Jolla, CA, 92037, USA

SOURCE: J. Immunol. Methods (1986), 95(2), 249-57
CODEN: JIMMBG; ISSN: 0022-1759
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To create anti-human Ig .kappa. subgroup antibodies with predefined specificity, rabbits were immunized with synthetic peptides which correspond to sequences within the first framework region of prototype .kappa. I, II, III, and IV light chains. The peptide-induced antisera recognized primary sequence-dependent .kappa. subgroup determinants. They correctly predicted the amino acid sequence in the first framework region of 2 .kappa. light chains. By Western immunoblotting and enzyme-linked immunoassay the antisera also identified previously typed, monoclonal light chains of different subgroups with complete specificity. These reagents define a site of .kappa. subgroup distinction and represent a potent tool for the characterization of light chain heterogeneity.

IT **107140-42-1DP**, hemocyanin **conjugates**
RL: PREP (Preparation)
(prepn. of, and Ig kappa light chain-specific antibodies induction by, of human)

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E1 THROUGH E30 ASSIGNED

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

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http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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=> d his l38

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L38 30 S E1-E30

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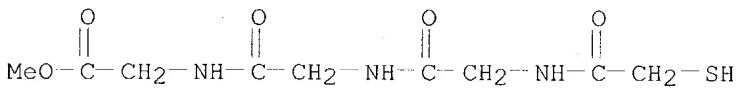
L38 ANSWER 1 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **154150-09-1** REGISTRY
CN Glycine, N-[N-[N-(mercaptoacetyl)glycyl]glycyl]-, methyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C9 H15 N3 O5 S
SR CA
LC STN Files: CA, CAPLUS



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1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 120:259847

L38 ANSWER 2 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **154150-08-0** REGISTRY
CN Glycine, N-(mercaptoacetyl)glycyl-, methyl ester (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
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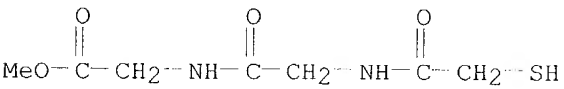
FS 3D CONCORD
MF C7 H12 N2 O4 S
SR CA
LC STN Files: CA, CAPLUS



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REFERENCE 1: 127:28218

REFERENCE 2: 120:259847

L38 ANSWER 3 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **146509-03-7** REGISTRY
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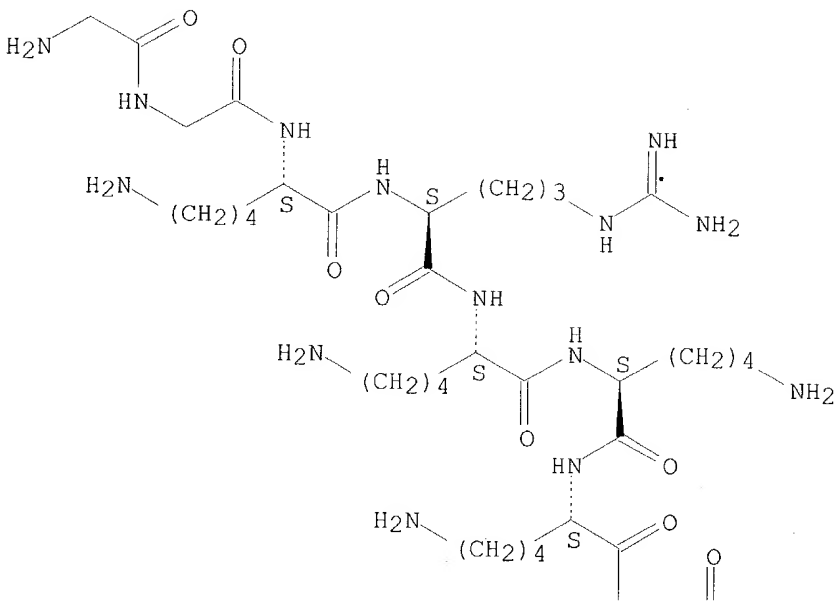
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C46 H86 N18 O12 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



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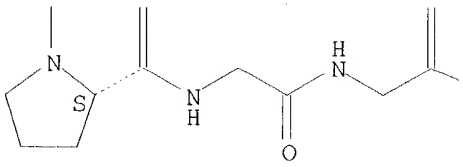

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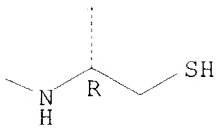

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1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 118:141585

L38 ANSWER 4 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **144269-59-0** REGISTRY
CN L-Cysteine, N2,N6-bis(1-deoxy-4-O-.beta.-D-galactopyranosyl-D-glucitol-1-yl)-L-lysyl-N6-[N2,N6-bis(1-deoxy-4-O-.beta.-D-galactopyranosyl-D-glucitol-1-yl)-L-lysyl]-L-lysylglycyl-L-serylglycylglycyl-L-serylglycylglycyl-L-serylglycylglycyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
MF C92 H167 N17 O58 S
SR CA
LC STN Files: CA, CAPLUS

RELATED SEQUENCES AVAILABLE WITH SEQLINK

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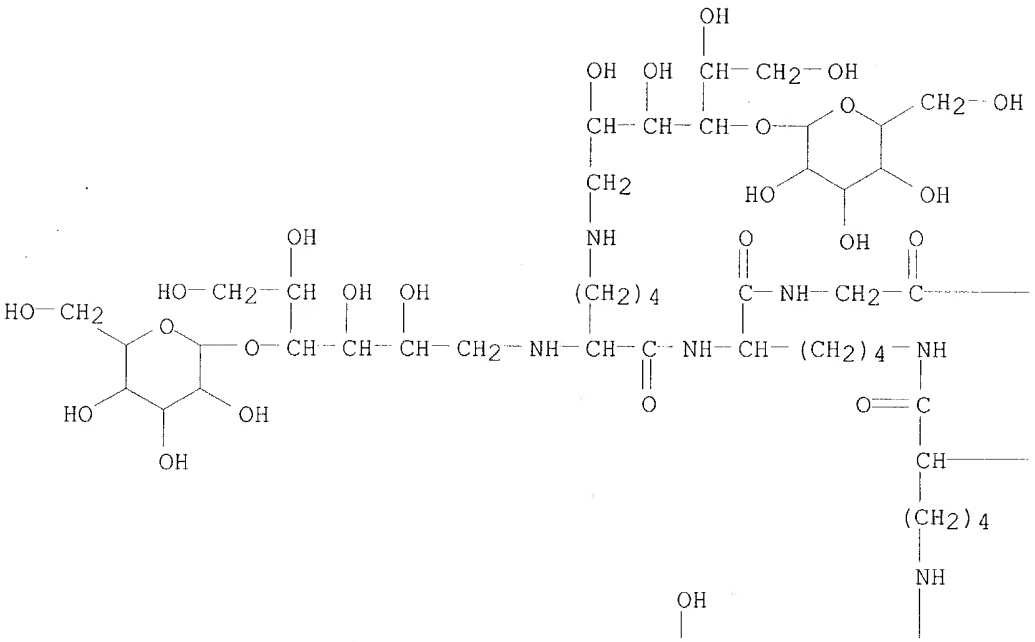

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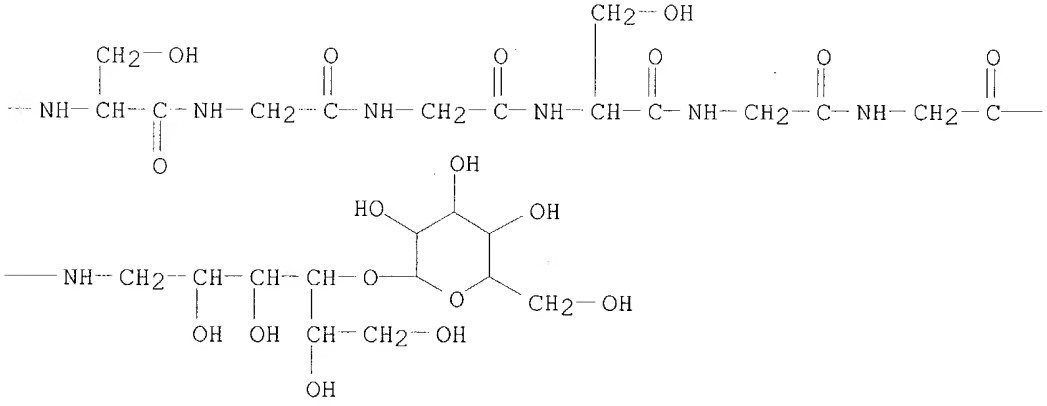

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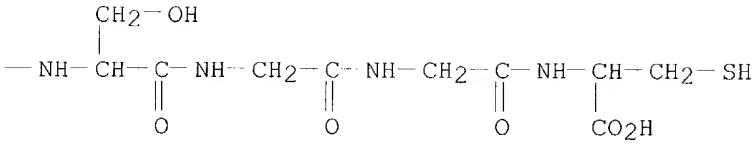

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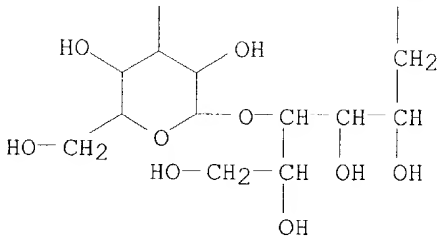

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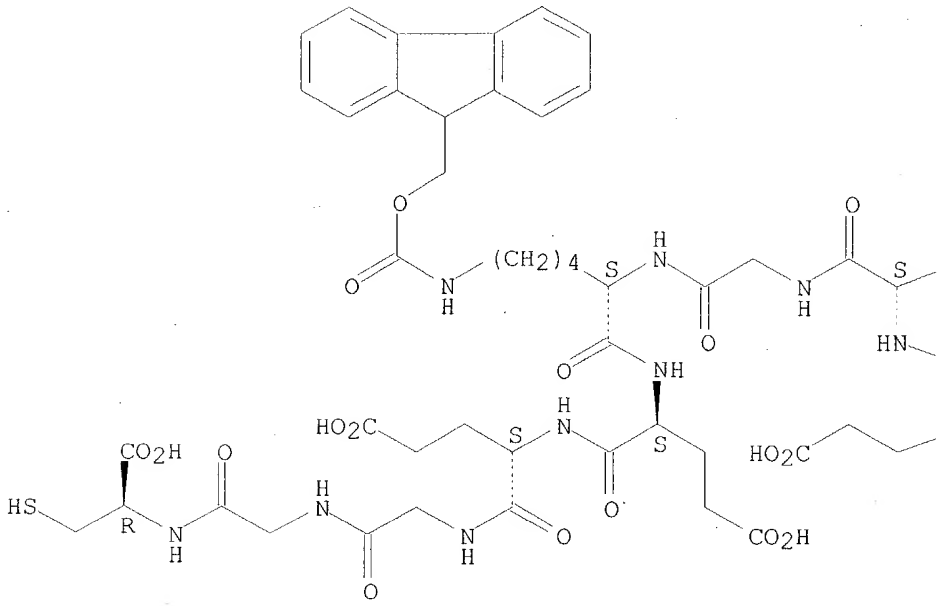
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 117:227232

L38 ANSWER 5 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **143090-39-5** REGISTRY
CN L-Cysteine, N-[N-[N-[N-[N-[N6-[(9H-fluoren-9-ylmethoxy)carbonyl]-N2-[N-[N6-[(9H-fluoren-9-ylmethoxy)carbonyl]-N2-(N-L-.alpha.-glutamyl-L-.alpha.-glutamyl)-L-lysyl]glycyl]-L-lysyl]-L-.alpha.-glutamyl]-L-.alpha.-glutamyl]glycyl]glycyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C71 H88 N12 O23 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PAGE 1-A



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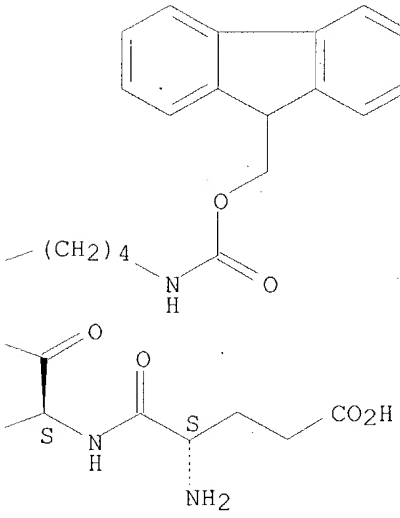

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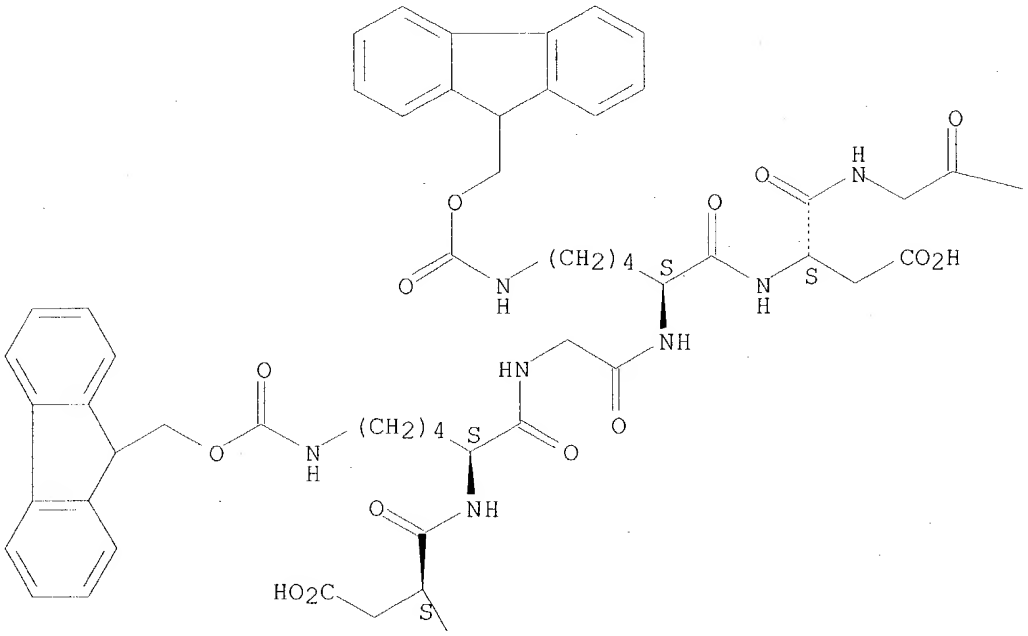
REFERENCE 1: 117:118497

L38 ANSWER 6 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **143090-38-4** REGISTRY
CN L-Cysteine, N-[N-[N-[N-[N2-[N-[N2-L-.alpha.-aspartyl-N6-[(9H-fluoren-9-ylmethoxy)carbonyl]-L-lysyl]glycyl]-N6-[(9H-fluoren-9-ylmethoxy)carbonyl]-L-lysyl]-L-.alpha.-aspartyl]glycyl]glycyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH

MF C59 H70 N10 O17 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PAGE 1-A



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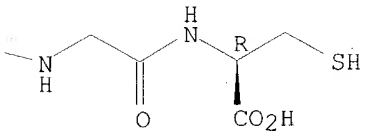

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REFERENCE 1: 117:118497

L38 ANSWER 7 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **143090-37-3** REGISTRY

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FS PROTEIN SEQUENCE; STEREOSEARCH
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SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

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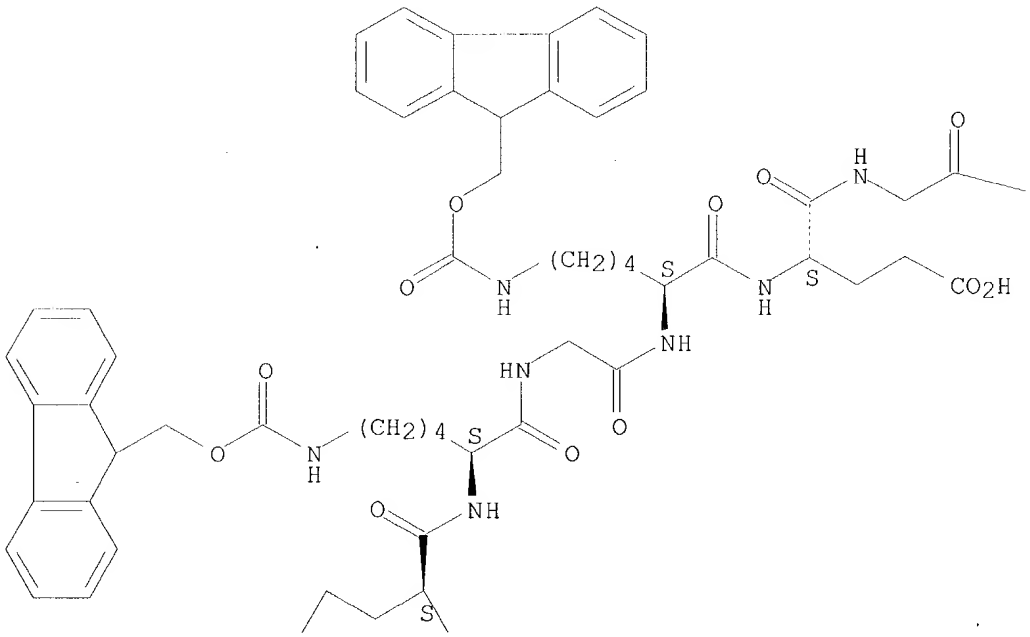

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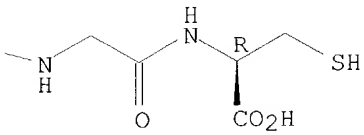

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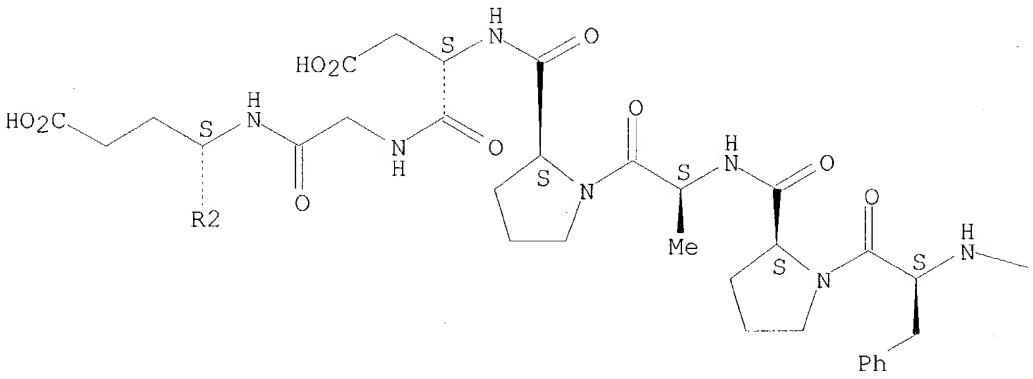
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 117:118497

L38 ANSWER 8 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **142770-36-3** REGISTRY
CN L-Cysteine, L-threonyl-L-tyrosyl-L-seryl-L-seryl-L-prolyl-L-.alpha.-glutamyl-L-.alpha.-aspartylglycyl-L-isoleucyl-L-histidyl-L-.alpha.-glutamyl-L-leucyl-L-phenylalanyl-L-prolyl-L-alanyl-L-prolyl-L-.alpha.-aspartylglycyl-L-.alpha.-glutamyl-L-.alpha.-glutamyl-L-.alpha.-aspartyl-L-threonyl-L-alanyl-L-.alpha.-glutamyl-L-leucyl-L-glutaminylglycylglycyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C130 H190 N32 O52 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A



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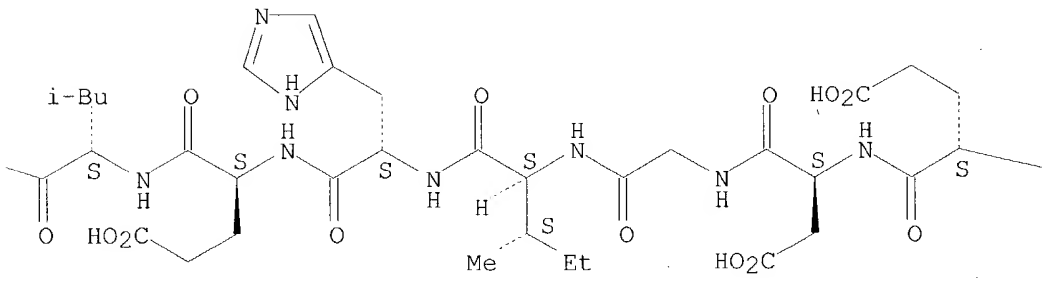

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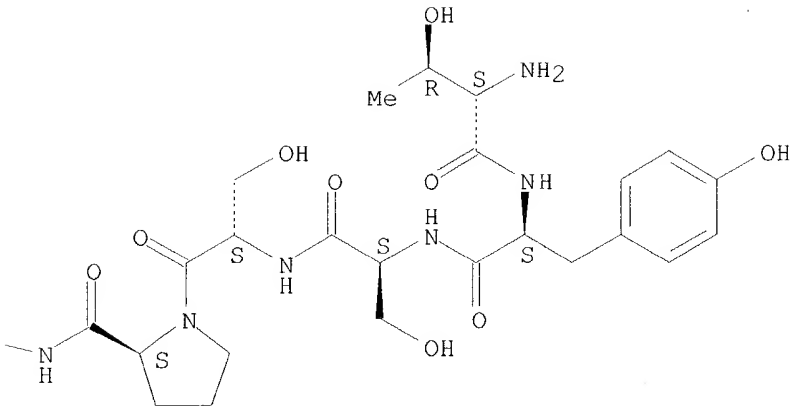

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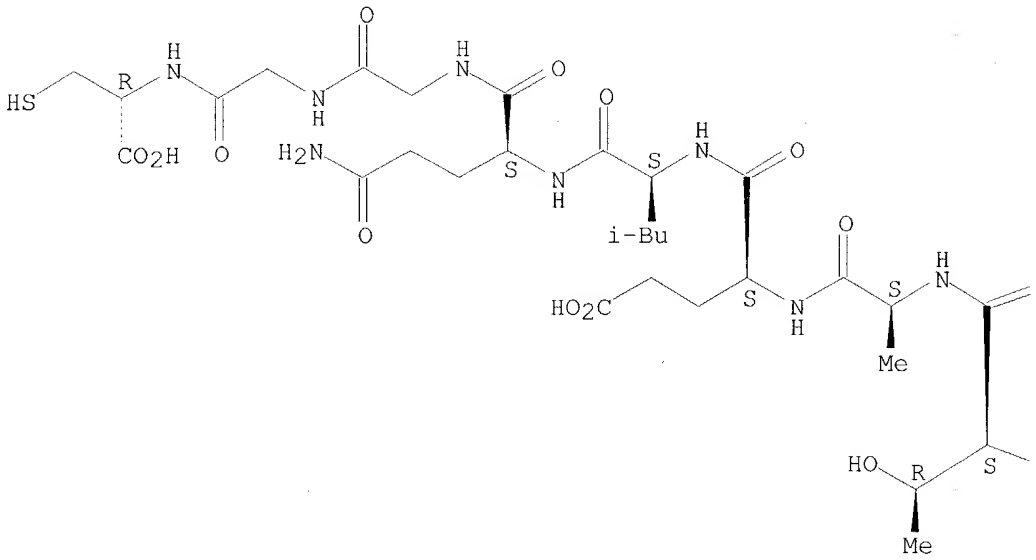

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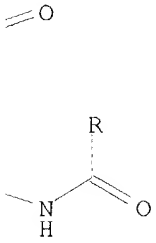

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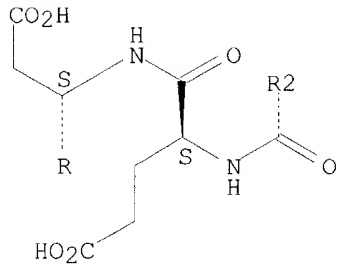

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1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 117:107807

L38 ANSWER 9 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **135236-49-6** REGISTRY
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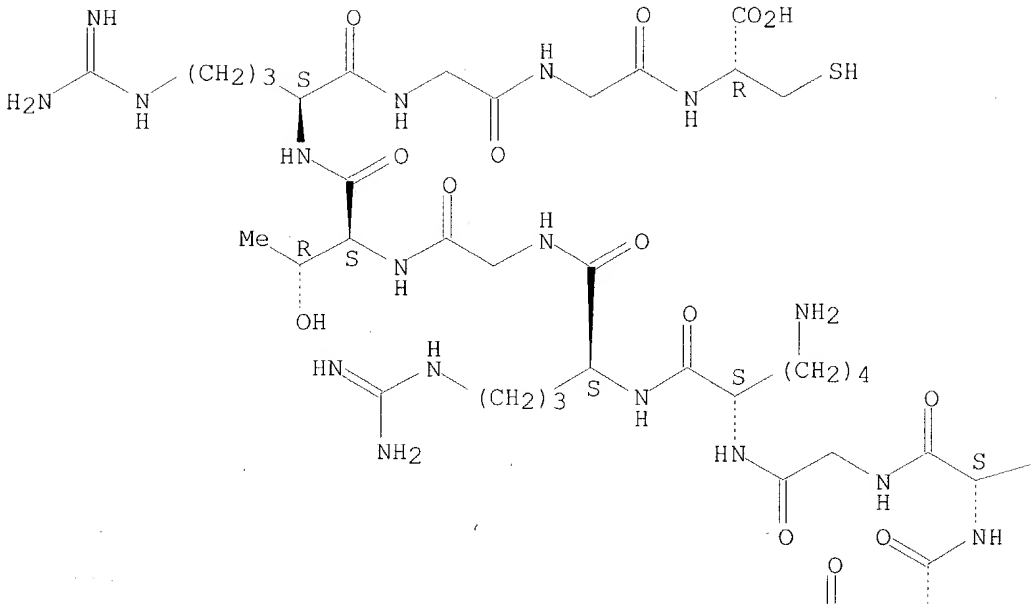
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



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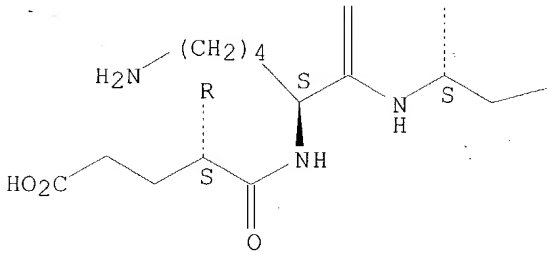
PAGE 2-A



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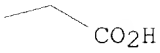

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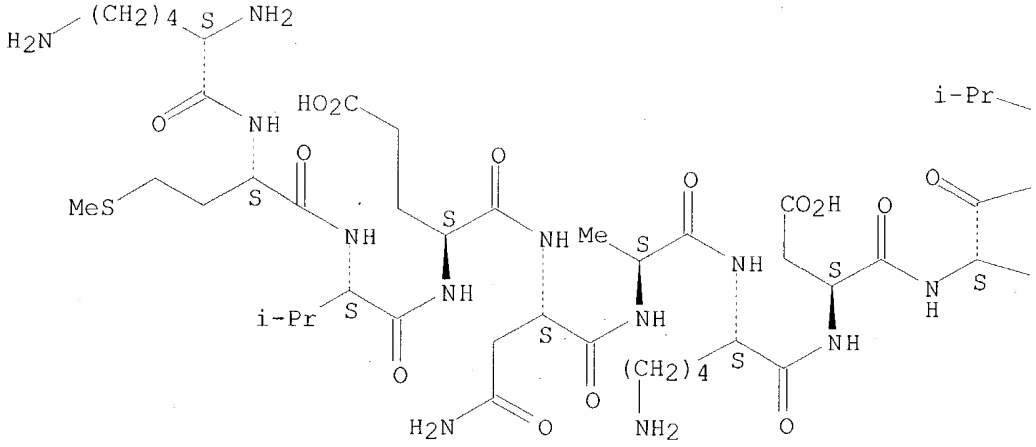

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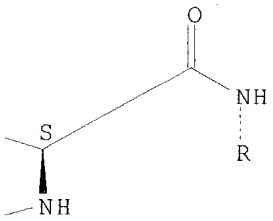
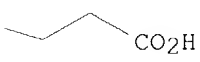
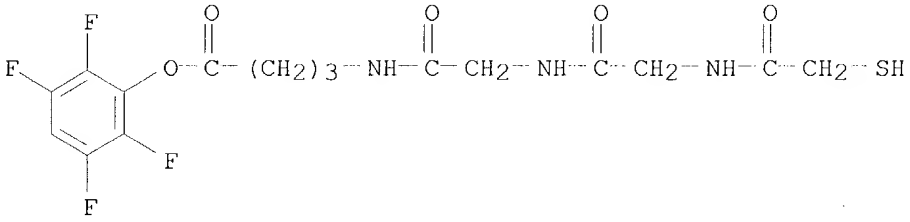




1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:99411

L38 ANSWER 10 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **132572-51-1** REGISTRY
CN Glycinamide, N-(mercaptoacetyl)glycyl-N-[4-oxo-4-(2,3,5,6-tetrafluorophenoxy)butyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C16 H17 F4 N3 O5 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

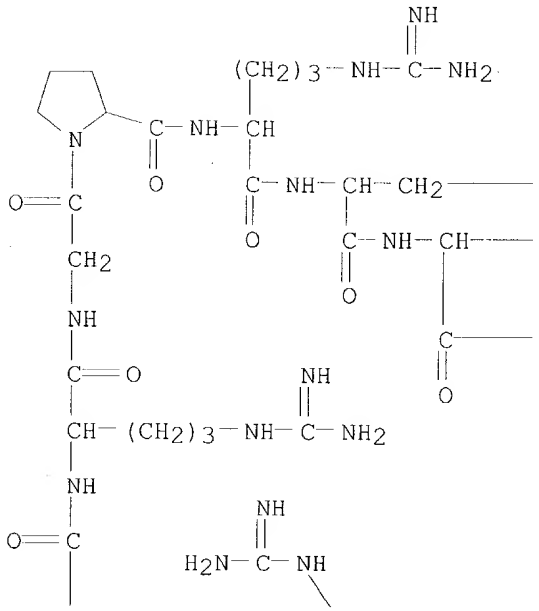
2 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 114:139080

REFERENCE 2: 114:117823

L38 ANSWER 11 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **131400-08-3** REGISTRY
CN L-Leucinamide, L-cysteinylglycylglycylglycyl-L-lysyl-L-.alpha.-glutamyl-L-lysylglycyl-L-histidyl-L-tryptophyl-L-alanyl-L-lysyl-L-.alpha.-aspartyl-L-cysteinyl-L-prolyl-L-lysyl-L-lysyl-L-prolyl-L-arginylglycyl-L-prolyl-L-arginylglycyl-L-prolyl-L-arginyl-L-glutaminyl-L-threonyl-L-seryl-L-leucyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C139 H231 N49 O37 S2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

PAGE 1-A



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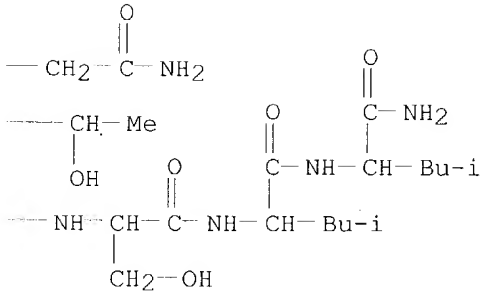

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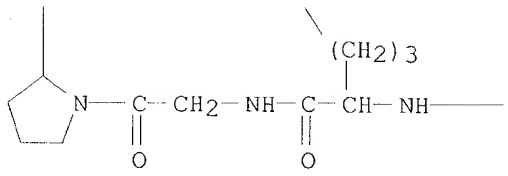

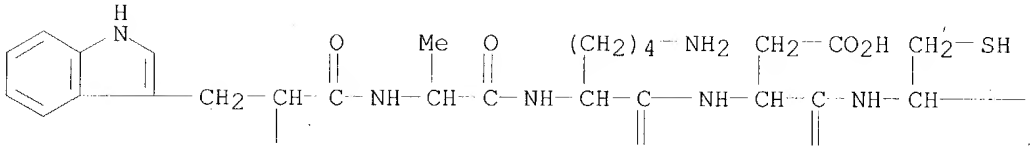

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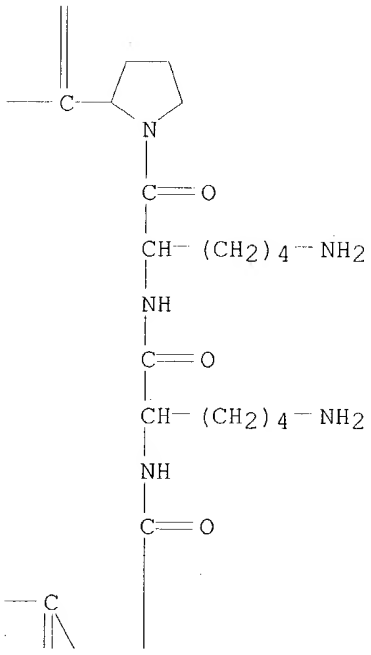
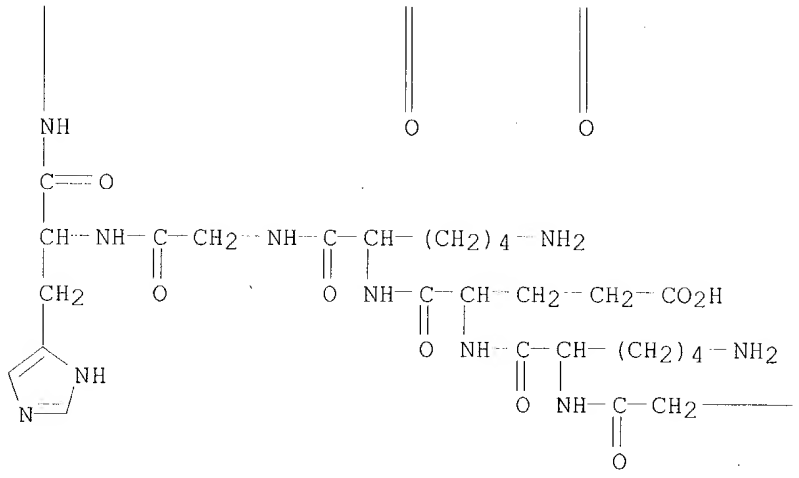


PAGE 3-A



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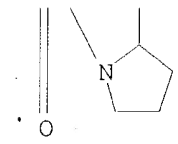
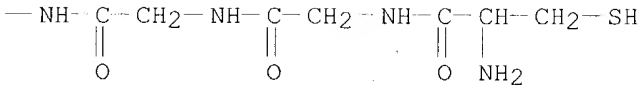




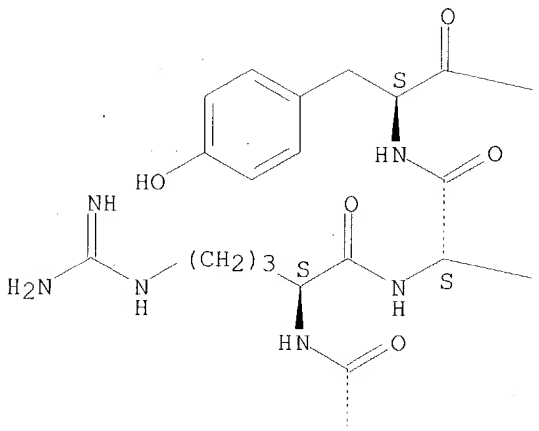
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:778

L38 ANSWER 12 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **131400-07-2** REGISTRY
CN L-Alaninamide, L-cysteinylglycylglycylglycylglycyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-seryl-L-threonyl-L-valyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C71 H127 N35 O19 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A



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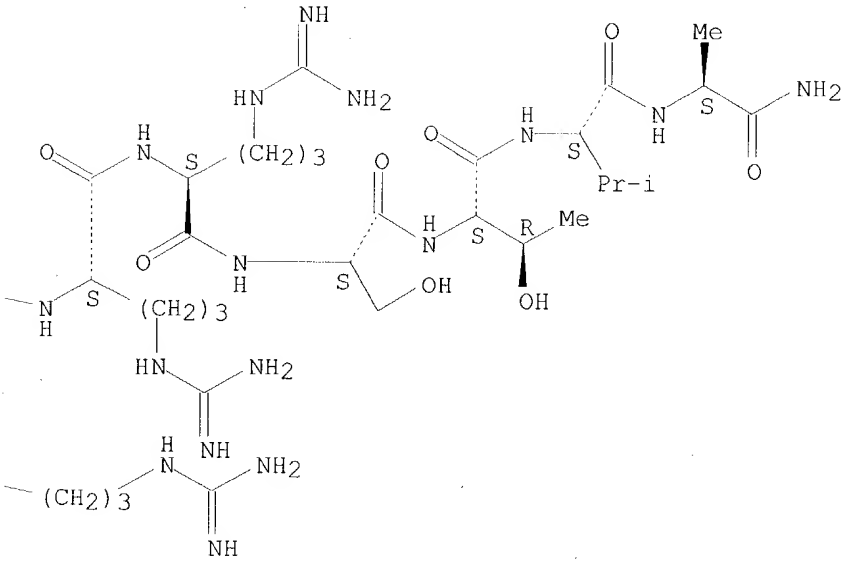

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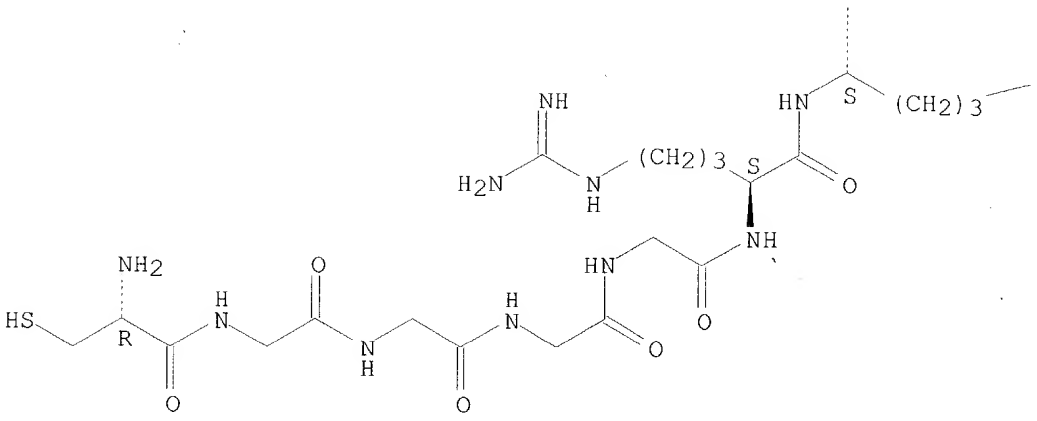

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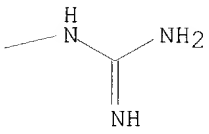


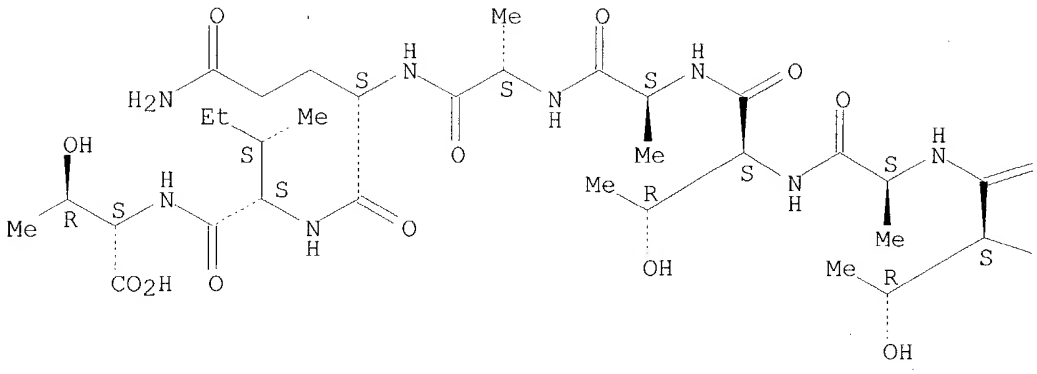
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:778

L38 ANSWER 13 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **131399-96-7** REGISTRY
CN L-Threonine, L-cysteinylglycylglycyl-L-phenylalanyl-L-phenylalanylglycyl-L-alanyl-L-valyl-L-isoleucylglycyl-L-threonyl-L-isoleucyl-L-alanyl-L-leucylglycyl-L-valyl-L-alanyl-L-threonyl-L-alanyl-L-threonyl-L-alanyl-L-alanyl-L-glutaminyl-L-isoleucyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C104 H168 N26 O31 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A



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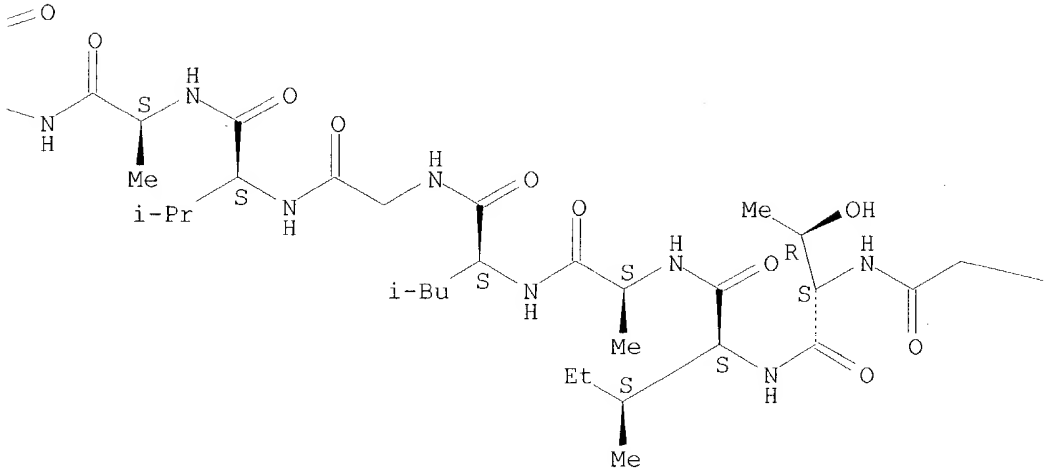

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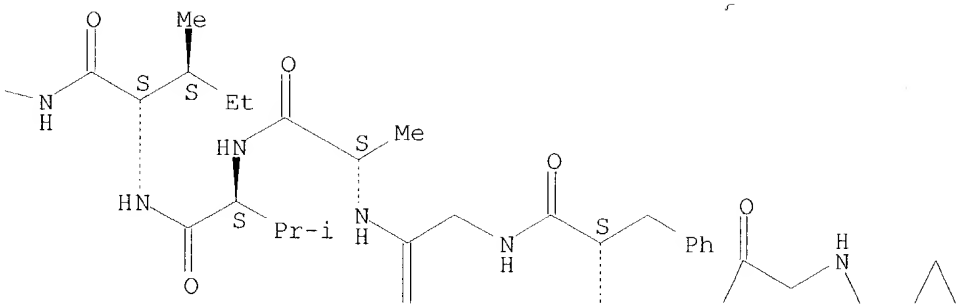

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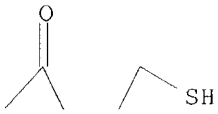
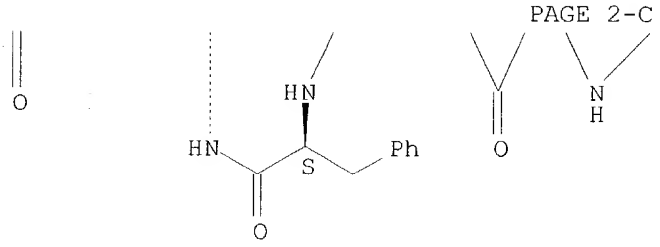
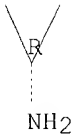




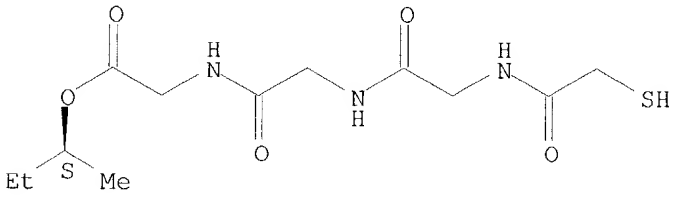


1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:778

L38 ANSWER 14 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **123228-58-0** REGISTRY
CN Glycine, N-[N-[N-(mercaptoacetyl)glycyl]glycyl]-, 1-methylpropyl ester, (S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C12 H21 N3 O5 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



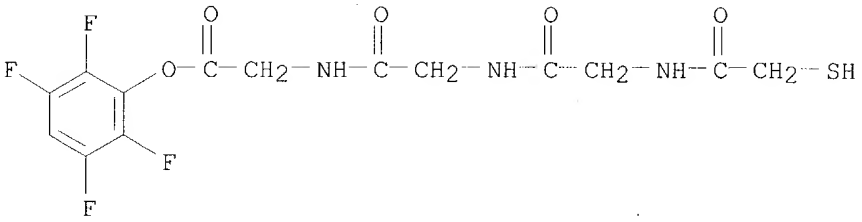
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:170212

L38 ANSWER 15 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **121557-57-1** REGISTRY
CN Glycine, N-[N-[N-(mercaptoacetyl)glycyl]glycyl]-, 2,3,5,6-tetrafluorophenyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C14 H13 F4 N3 O5 S

SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

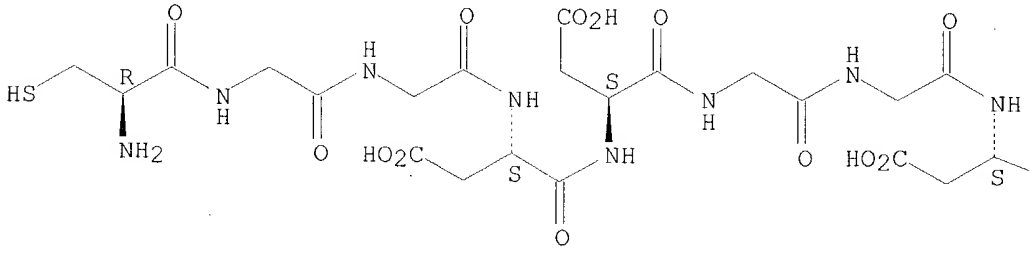
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:53446

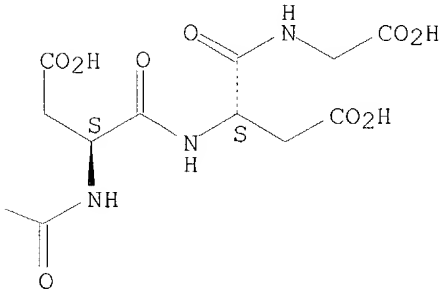
L38 ANSWER 16 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **118407-76-4** REGISTRY
CN Glycine, N-[N-[N-[N-[N-[N-[N-[N-(N-L-cysteinylglycyl)glycyl]-L-.alpha.-aspartyl]-L-.alpha.-aspartyl]glycyl]glycyl]-L-.alpha.-aspartyl]-L-.alpha.-aspartyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C33 H47 N11 O22 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



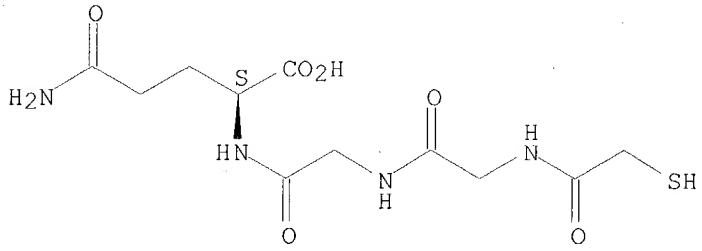
2 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:210697

REFERENCE 2: 110:53177

L38 ANSWER 17 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **114115-78-5** REGISTRY
CN L-Glutamine, N2-[N-[N-(mercaptoacetyl)glycyl]glycyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C11 H18 N4 O6 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



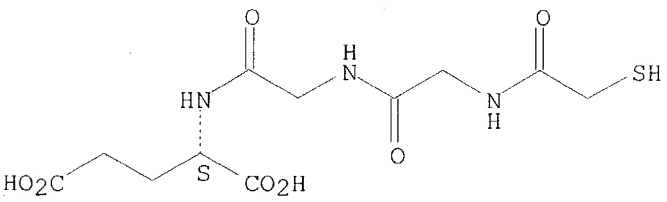
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 108:182862

L38 ANSWER 18 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **114115-77-4** REGISTRY
CN L-Glutamic acid, N-[N-[N-(mercaptoacetyl)glycyl]glycyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C11 H17 N3 O7 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

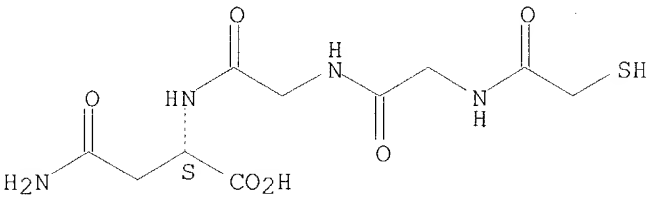
1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 108:182862

L38 ANSWER 19 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **114115-76-3** REGISTRY
CN L-Asparagine, N2-[N-[N-(mercaptoacetyl)glycyl]glycyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C10 H16 N4 O6 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



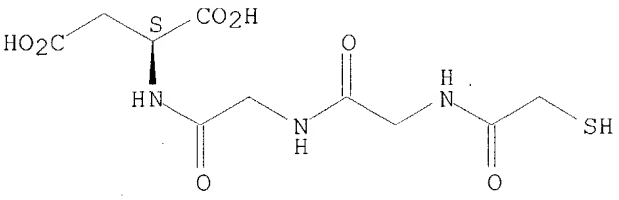
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 108:182862

L38 ANSWER 20 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **114115-75-2** REGISTRY
CN L-Aspartic acid, N-[N-[N-(mercaptoacetyl)glycyl]glycyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C10 H15 N3 O7 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

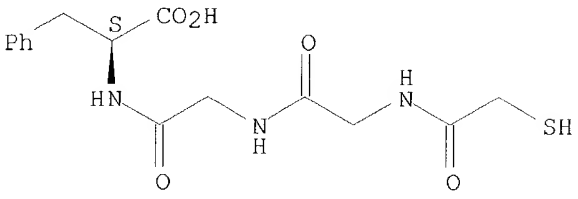
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 108:182862

L38 ANSWER 21 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **114115-74-1** REGISTRY
CN L-Phenylalanine, N-[N-[N-(mercaptoacetyl)glycyl]glycyl]- (9CI) (CA INDEX

NAME)
FS STEREOSEARCH
MF C15 H19 N3 O5 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



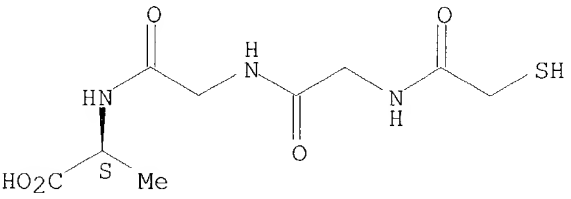
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 108:182862

L38 ANSWER 22 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **114115-73-0** REGISTRY
CN L-Alanine, N-[N-[N-(mercaptoacetyl)glycyl]glycyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C9 H15 N3 O5 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



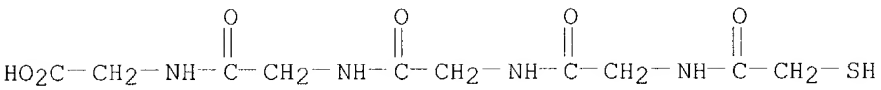
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 108:182862

L38 ANSWER 23 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **114115-72-9** REGISTRY
CN Glycine, N-[N-[N-[N-(mercaptoacetyl)glycyl]glycyl]glycyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD; PROTEIN SEQUENCE
MF C10 H16 N4 O6 S
SR CA
LC STN Files: CA, CAPLUS

RELATED SEQUENCES AVAILABLE WITH SEQLINK



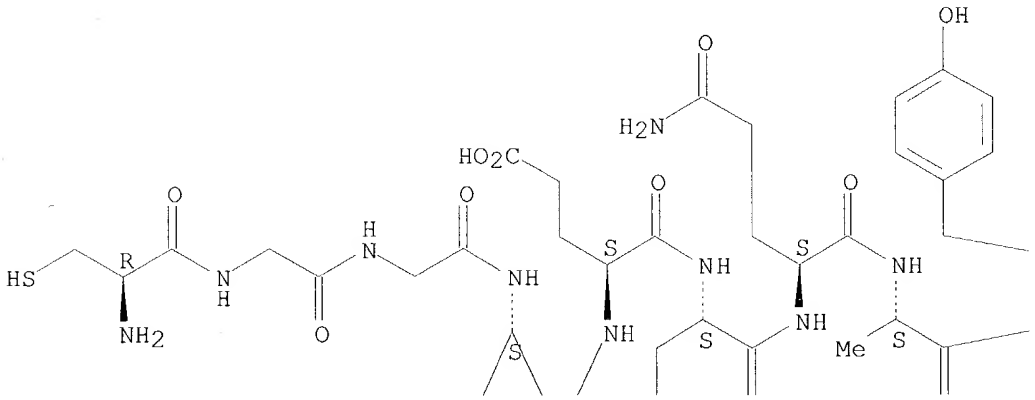
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 108:182862

L38 ANSWER 24 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **113960-59-1** REGISTRY
CN L-Alanine, L-cysteinylglycylglycyl-L-lysyl-L-.alpha.-glutamyl-L-seryl-L-glutaminyl-L-alanyl-L-tyrosyl-L-tyrosyl-L-.alpha.-aspartylglycyl-L-arginyl-L-arginyl-L-seryl-L-seryl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C74 H115 N25 O28 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



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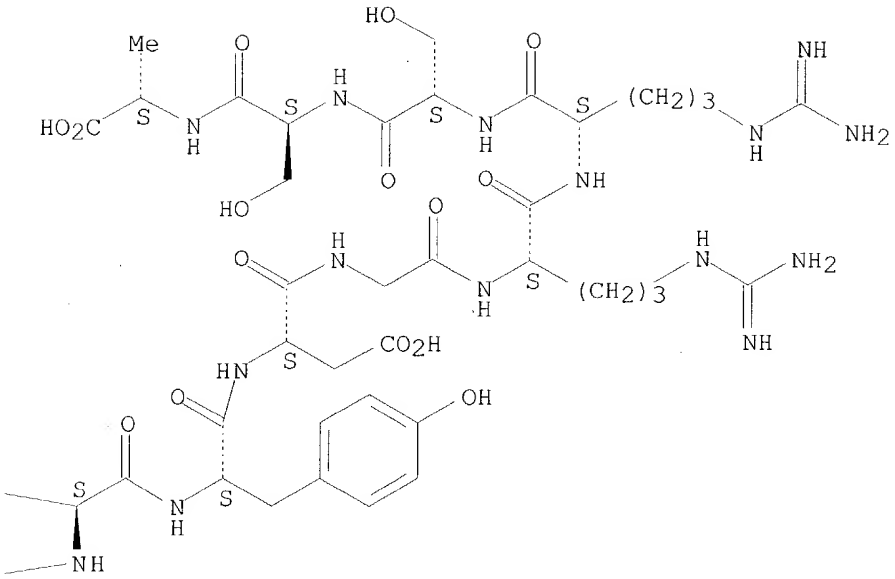

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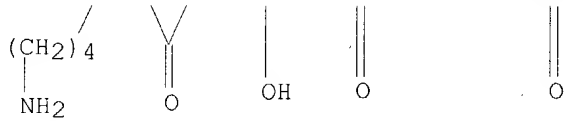


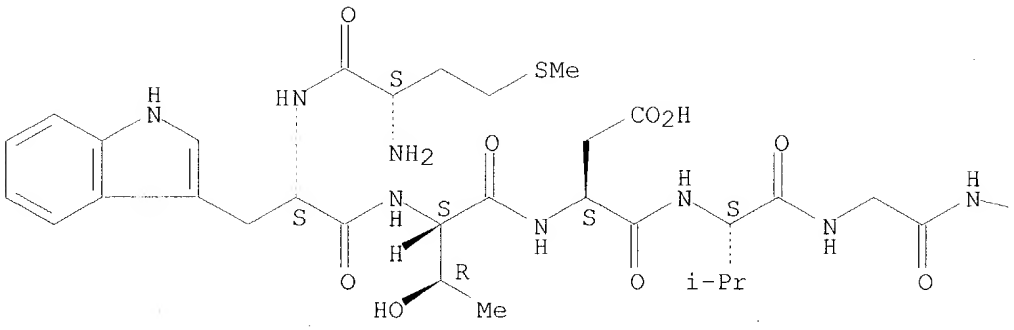
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 108:163498

L38 ANSWER 25 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **113944-84-6** REGISTRY
CN L-Cysteine, L-methionyl-L-tryptophyl-L-threonyl-L-.alpha.-aspartyl-L-valylglycyl-L-leucyl-L-cysteinyl-L-lysyl-L-lysyl-L-arginyl-L-prolyl-L-lysyl-L-prolylglycylglycyl-L-tryptophyl-L-asparaginyl-L-threonylglycylglycyl-L-seryl-L-arginyl-L-tyrosyl-L-prolylglycylglycyl-(9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C131 H202 N40 O36 S3
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



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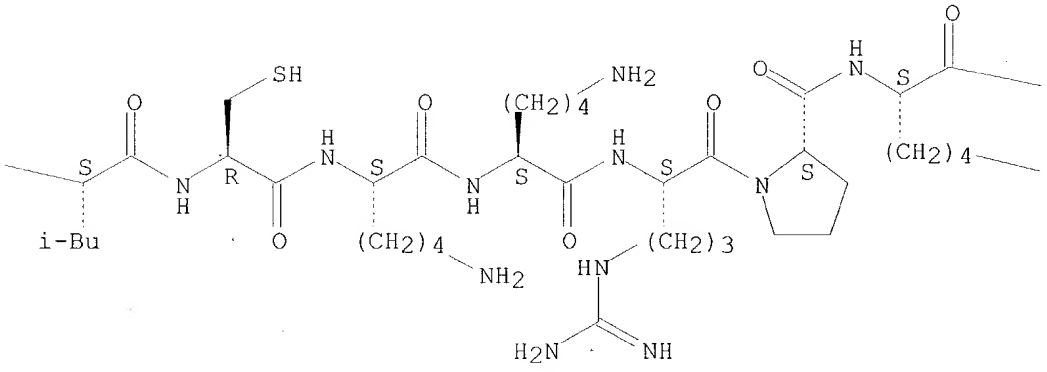

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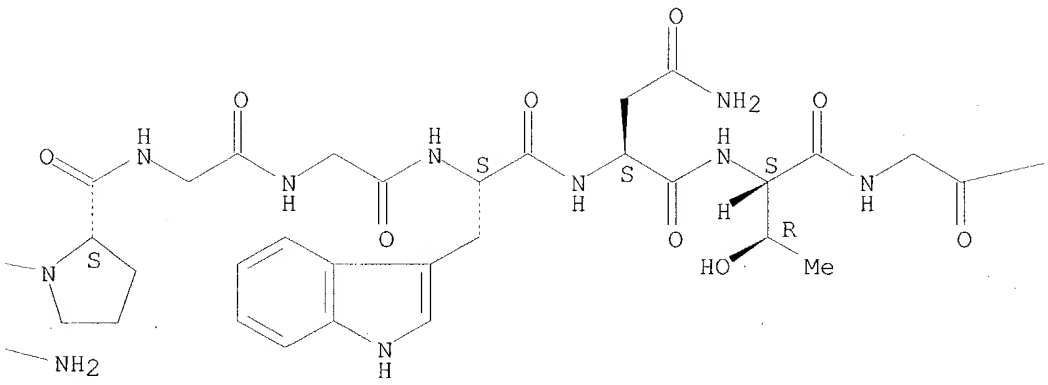
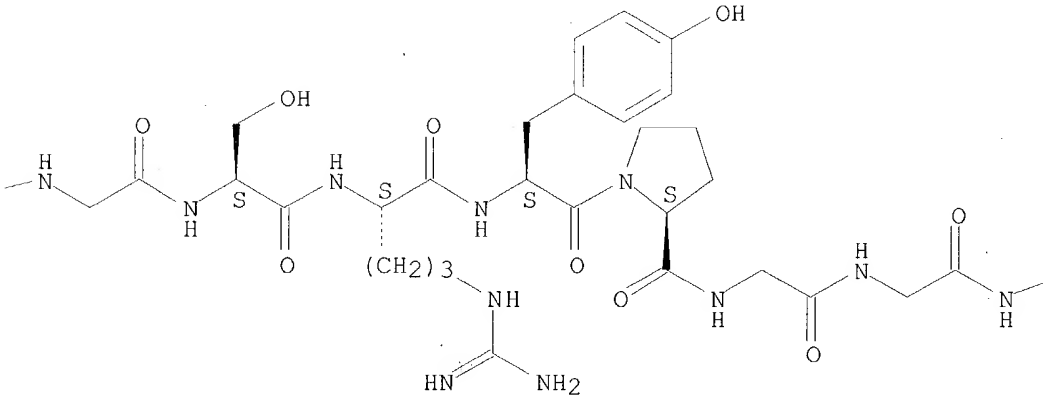
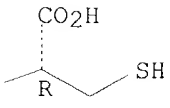


PAGE 1-D



PAGE 1-E



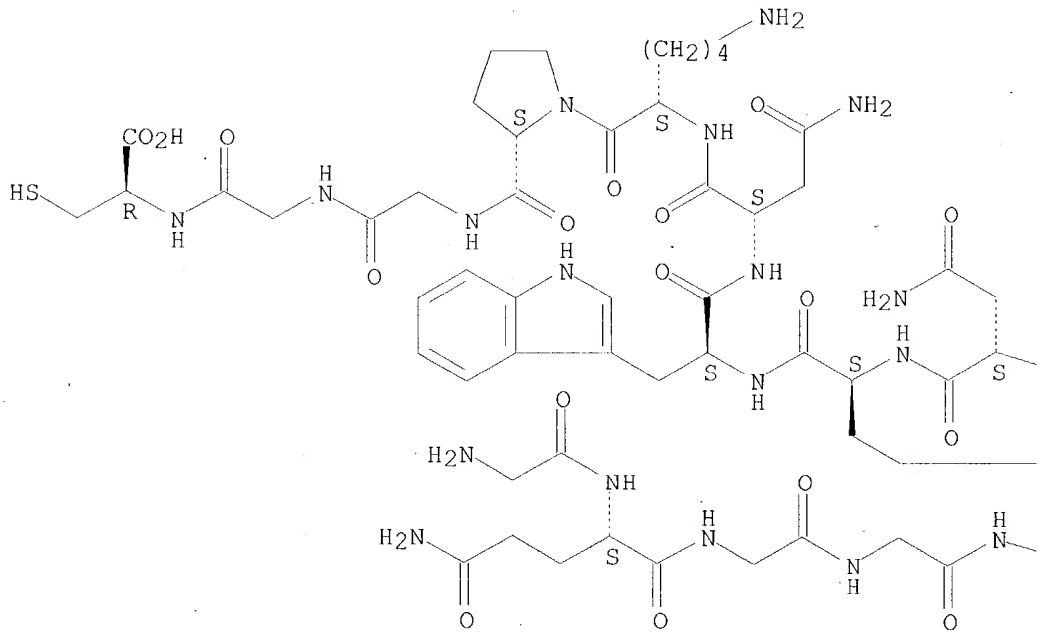
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

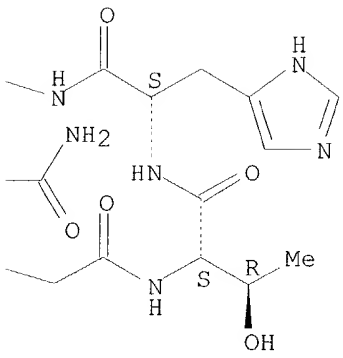
REFERENCE 1: 108:163498

L38 ANSWER 26 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **113944-83-5** REGISTRY
CN L-Cysteine, glycyl-L-glutaminylglycylglycylglycyl-L-threonyl-L-histidyl-L-asparaginyl-L-glutaminyl-L-tryptophyl-L-asparaginyl-L-lysyl-L-prolylglycylglycyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C65 H96 N24 O22 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A





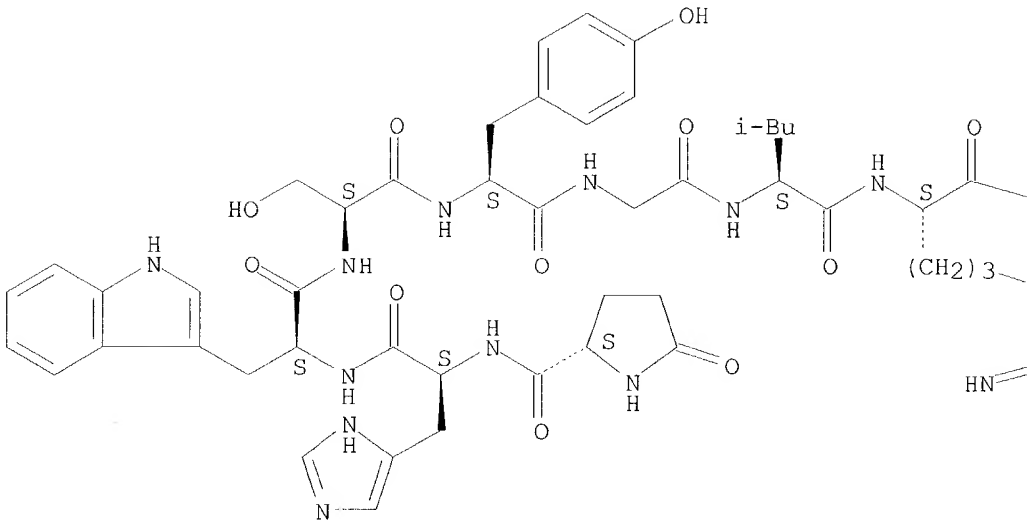
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 108:163498

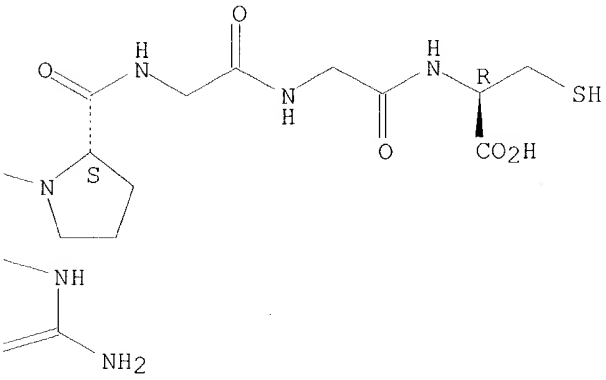
L38 ANSWER 27 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **108635-48-9** REGISTRY
CN Luteinizing hormone-releasing factor (swine), 10a-glycine-10b-L-cysteine-(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Luteinizing hormone-releasing factor (pig), 10a-glycine-10b-L-cysteine-
OTHER NAMES:
CN LH-RH-Gly-Cys
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C60 H82 N18 O16 S
SR CA
LC STN Files: ADISNEWS, AGRICOLA, BIOSIS, CA, CAPLUS, CIN, PROMT, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



9 REFERENCES IN FILE CA (1962 TO DATE)
8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
9 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 129:240143

REFERENCE 2: 127:288362

REFERENCE 3: 126:181554

REFERENCE 4: 125:298945

REFERENCE 5: 123:306747

REFERENCE 6: 121:246704

REFERENCE 7: 120:132349

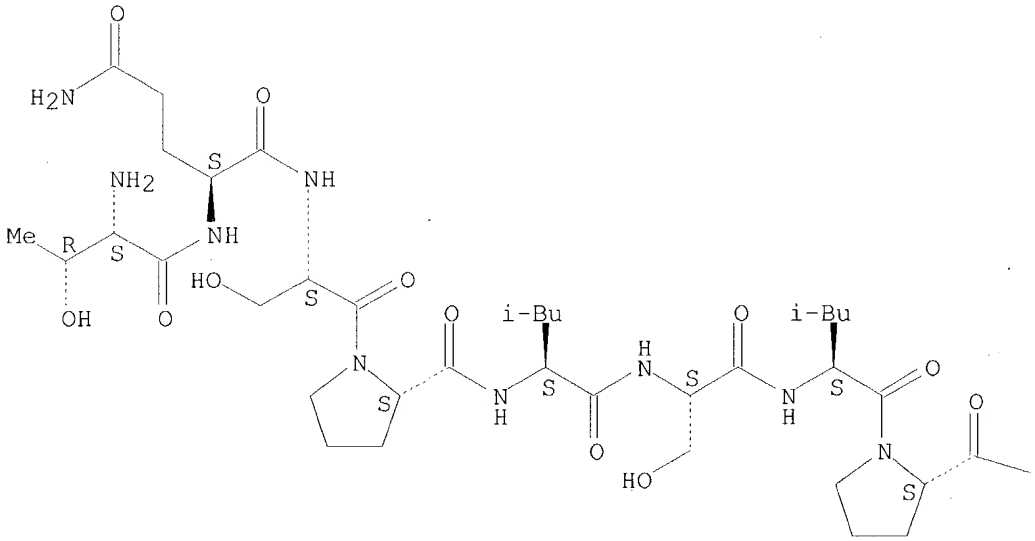
REFERENCE 8: 110:226143

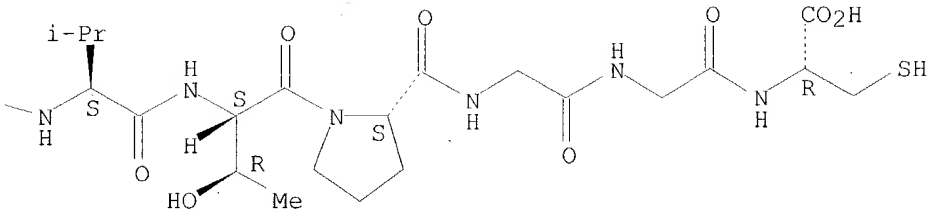
REFERENCE 9: 107:968

L38 ANSWER 28 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **107140-42-1** REGISTRY
CN L-Cysteine, L-threonyl-L-glutaminyl-L-seryl-L-prolyl-L-leucyl-L-seryl-L-leucyl-L-prolyl-L-valyl-L-threonyl-L-prolylglycylglycyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C58 H97 N15 O20 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A

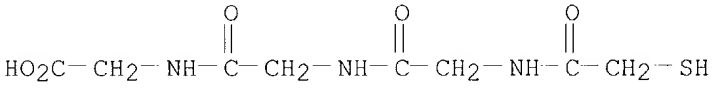




1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 106:117762

L38 ANSWER 29 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **66516-09-4** REGISTRY
CN Glycine, N-(mercaptoacetyl)glycylglycyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glycine, N-[N-[N-(mercaptoacetyl)glycyl]glycyl]-
OTHER NAMES:
CN MAG 3
CN Mercaptoacetylglycylglycylglycine
CN Mercaptoacetyltriglycine
CN Mertiatide
FS 3D CONCORD
MF C8 H13 N3 O5 S
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CIN, DDFU, DIOGENES, DRUGU, DRUGUPDATES, EMBASE, PHAR, PROMT, TOXCENTER, USAN, USPATFULL
Other Sources: WHO



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

74 REFERENCES IN FILE CA (1962 TO DATE)
48 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
74 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:174771

REFERENCE 2: 137:165559

REFERENCE 3: 137:145521

REFERENCE 4: 137:10850

REFERENCE 5: 136:4197

REFERENCE 6: 135:253844

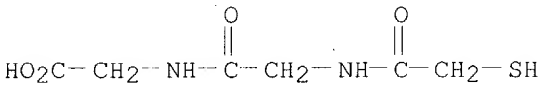
REFERENCE 7: 135:177389

REFERENCE 8: 135:146180

REFERENCE 9: 135:42801

REFERENCE 10: 134:323118

L38 ANSWER 30 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN **66516-08-3** REGISTRY
CN Glycine, N-(mercaptoacetyl)glycyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glycine, N-[N-(mercaptoacetyl)glycyl]-
OTHER NAMES:
CN Mercaptoacetyl diglycine
FS 3D CONCORD
MF C6 H10 N2 O4 S
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10 REFERENCES IN FILE CA (1962 TO DATE)
5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
10 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 132:233676

REFERENCE 2: 127:28218

REFERENCE 3: 121:53220

REFERENCE 4: 120:259847

REFERENCE 5: 120:186299

REFERENCE 6: 120:93865

REFERENCE 7: 117:247830

REFERENCE 8: 117:166771

REFERENCE 9: 90:116647

REFERENCE 10: 89:110353